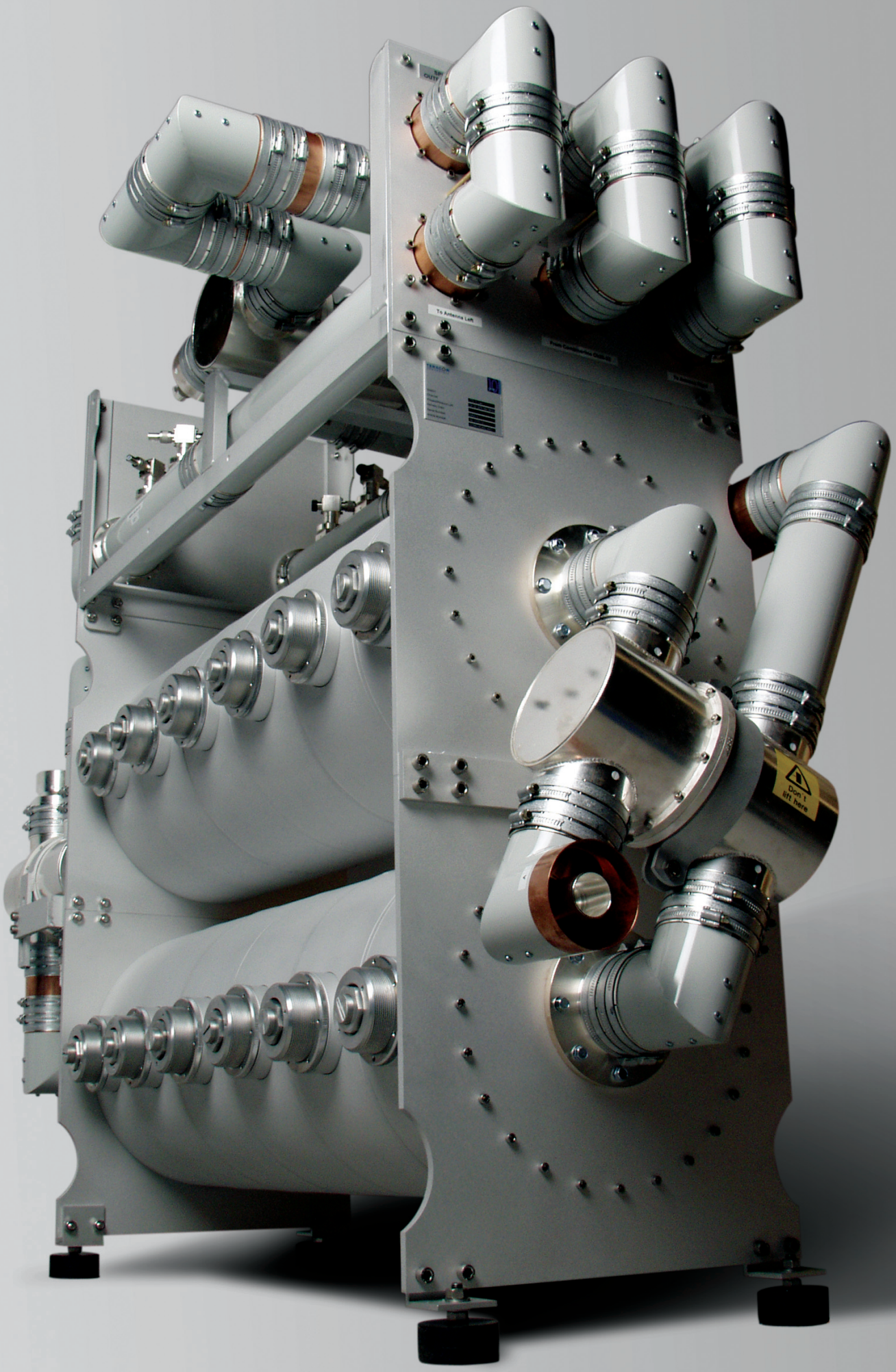
Exir Broadcasting

FILTERS & COMBINERS

Broadcasting Products #04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For actual specifications please contact Exir Broadcasting for more information.

TYPICAL VALUES
The specifications herein represent typical values unless otherwise indicated. Selected filter and combiner models can be sharp tuned to meet customer requirements. Please contact Exir Broadcasting for more information.

POWER LEVELS
Maximum input power for selected filter and combiner models can be modified to meet customer requirements. Some combiner models can be equipped with various couplers, enabling higher input power. Please contact Exir Broadcasting for more information.

CONNECTIONS
Several products in this catalogue are available with optional connections as indicated in the specifications. In addition, we offer a wide range of high quality adapters in a variety of sizes to suit any application – please refer to our catalogue for Rigid Line, Accessories & Measurement Equipment or contact Exir Broadcasting for more information.

BAND III AND BAND IV-V TV PRODUCTS
While all of the TV filters and combiners in this catalogue are available with 6, 7 or 8 MHz bandwidth, the specifications provided herein refer to measurements performed at 8 MHz unless otherwise stated. To receive additional product sheets or specifications for these products when using 6 or 7 MHz bandwidth, please contact Exir Broadcasting for more information.

SPECIAL REQUIREMENTS AND SOLUTIONS
This catalogue encompasses a large selection of standard broadcasting products from Exir Broadcasting. Many situations, however, call for special system configurations due to the singular demands of specific broadcasting applications.

At Exir Broadcasting our knowledgeable staff is accustomed to helping customers find the best possible solutions to meet their particular needs, no matter what the situation may be. So please do not hesitate to contact us to discuss any special requirements you may have.

Flexible Design Allows Individual System Solutions

At Exir Broadcasting we build flexibility into all of our standard products making them fully adaptable for virtually any situation.

Our long history at the cutting edge of RF design guarantees our customers optimal solutions. These pages showcase some of the many individual solutions we have delivered over the years featuring standard components assembled as complete combiner systems. Customers can order standard products either as separate components or integrated into complete combiner systems for unique stations. Furthermore, on-site installation is always just a matter of a few simple connections in order to begin broadcasting.

1 **Four FM combiners in a dual chain with wideband splitter**
Four dual FM combiners for up to 20 kW each and a broadband input U-link splitter located at the beginning of the chain.

2 **Two UHF combiners for combined analogue and digital services**
Two UHF combiners for up to 5 kW at each narrowband input. The broadband input is optimized for existing analogue services. The narrowband input is equipped with a matching section and the output with a directional coupler section.

3 **Seven high power FM combiners in a chain**
This 7-channel FM combiner system is optimized for seven 10 kW transmitters with a minimum frequency spacing at 800 kHz. The larger combiner at the end of the chain can handle up to 50 kW on the narrowband input port and 150 kW on the output port.

4 **Four DMB combiners in a dual chain**
Combiner system designed as a dual chain configuration with a 3-port patch panel on each narrowband input for narrowband switching. Each combiner can handle up to 4 kW DAB/DMB service on the narrowband input and up to 30 kW on the output port.

5 **Two UHF waveguide combiners with integrated patch panel system**
Designed for handling three analogue 10 kW services, this system is customized using multiple patch panels. This allows transmitter switching between the combiner system, or to a station power load. Direct feeding of a transmitter to the antenna is possible and also integrated antenna switching panel, a power meter makes it possible to monitor the powers from the directionally couplers.

6 **Four UHF combiners with by-pass patch panel and Antenna Switching Frame unit**
Four UHF combiners assembled in a 19" frame solution for narrowband input power of up to 3 kW. 4-port patch panels make it possible to bypass any combiner unit in the system. A 7-port Antenna Switching Frame unit splits the power up to either the antenna or a station power load.

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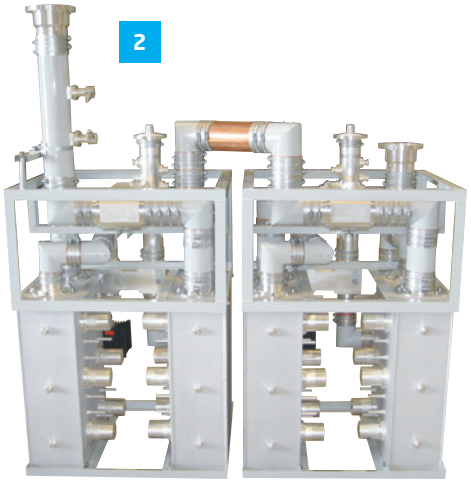

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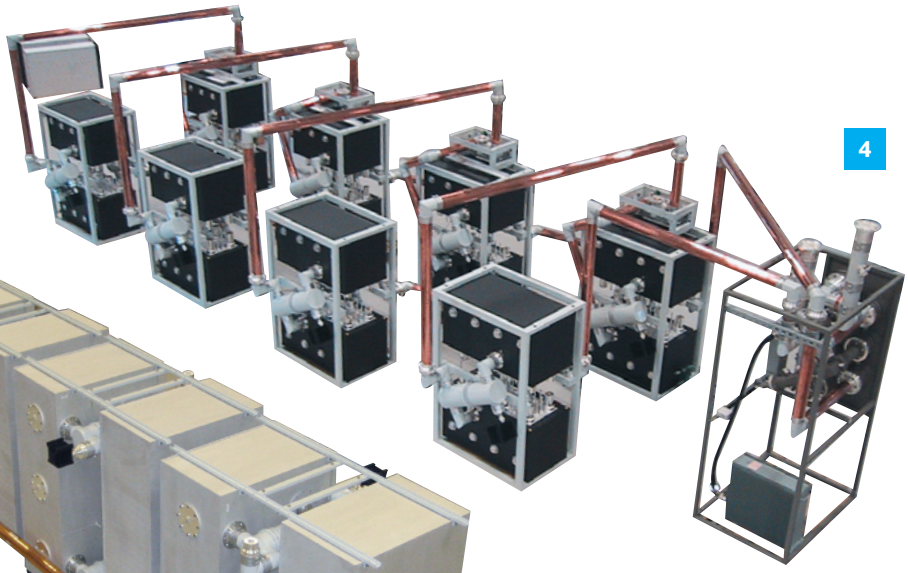

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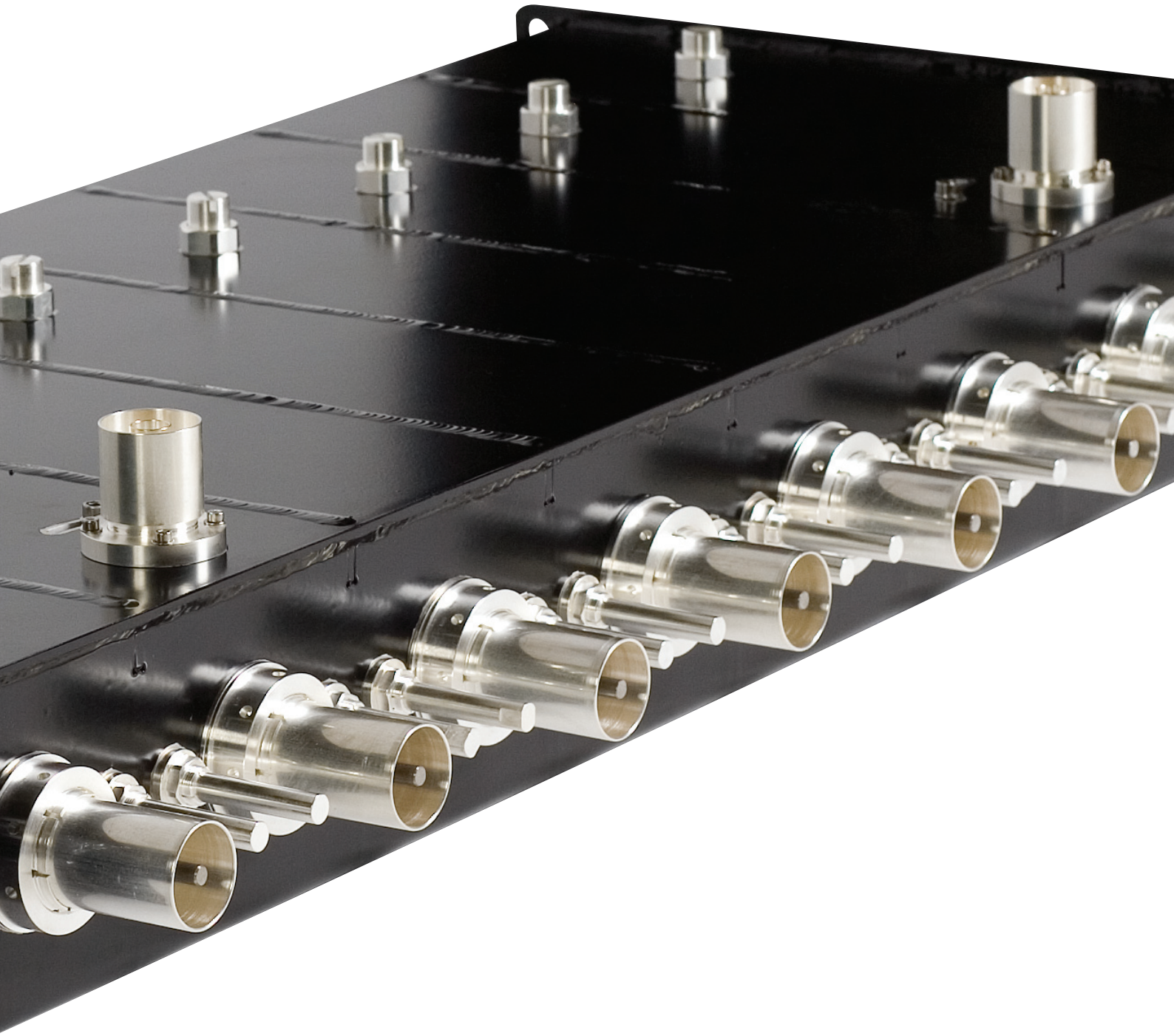
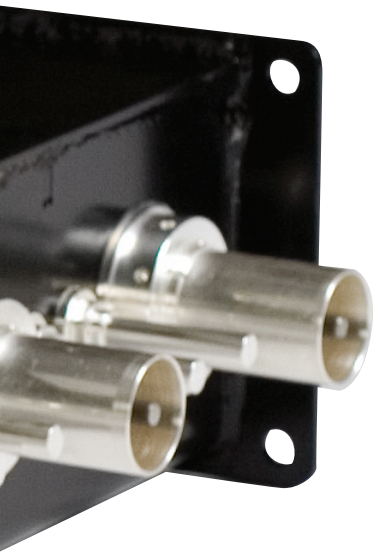


Filters



Filters

Whether you require traditional analogue products or new digital technology, we offer widely proven, cost-effective solutions. In addition Exir Broadcasting provides custom engineering to meet individual needs and client specifications.

All Exir Broadcastings filters meet demanding quality standards, providing superior reliability, performance and stability for years of trouble-free operation. Each filter or system is 100% factory tested, and a copy of the test data is supplied with every shipment. Well tuned to the ongoing development of digital technology, Exir Broadcasting continues to lead the way with its broad range of compact filters designed to meet worldwide digital standards and specifications. We are proud to say that these filters continue to play a significant role in many new networks and systems, providing exceptional reliability and customer satisfaction.

FM Filters

Exir Broadcasting FM filters cover the range from 87.5-108 MHz and have input powers ranging from 500 W to 33 kW. All of the filters are FM band tunable and convection cooled. These well-proven designs have been used in hundreds of stations using either 2 or 3 cavity notch filters or band pass techniques. The fully adjustable input and output coupling provide superior tuning and performance over the entire FM band. The notch filters use an all-copper construction providing low loss with high notch depth. The bandpass filters use an aluminium construction with copper or aluminium resonator for stable high power performance.

DAB/DMB Filters

Exir Broadcasting is providing filters with up to 8 cavities to meet the strict requirements of both the critical and non-critical masks. Full compliance with the Eureka 147 international specification is achieved at DAB / DMB (174 - 240 MHz) and L Band (1452 -1492 MHz) frequencies at powers ranging from 500 W to 2 kW.

All Exir Broadcasting filters are DAB/DMB band tunable, temperature compensated and convection cooled.

Repetitive cavity design ensures a minimum component count, high reliability and ease of tuning all in a compact package for space saving systems. The bandpass filters use an aluminium construction with copper or aluminium resonator for stable high power performance.

VHF Filters

Our products for the 174-240 MHz Band III frequency range incorporate the same design principles used with our other filter products: welded aluminium casings, the elimination of contact springs, and the use of copper or aluminium resonators to achieve stable, high-power performance. These filters are both tunable and temperature compensated, and our most capable model can handle up to 7 kW of rms input power. These combined features provide broadcasters with the familiar low loss, high rejection and temperature stability associated with all of our filter products.

UHF Analogue and Digital Filters

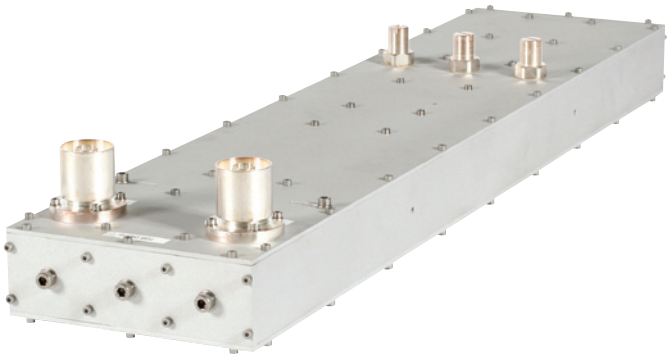
This exciting range of Exir Broadcasting filters offers tried and tested performance for traditional analogue and digital services with the advantages in many filters of a UHF band tunable coaxial design and the low losses associated with seamless cavities and the silver-plating of key components. The range of filters offers options in band pass and notch configurations of up to 8 cavities. Fully adjustable input, output and cross-couplings provide superior rejection characteristics to meet all standards. The welded aluminium case provides a robust platform for a family of filters with input powers of up to 15 kW. This filter series complements our higher power triple-mode and single-mode waveguide filters to provide solutions for all your TV applications. These filters employ a trademark tuner design that does not require contact spring fingers. This technique greatly increases the reliability of the filter and at the same time compensates for any temperature variation within the filter.

FM Bandpass filter

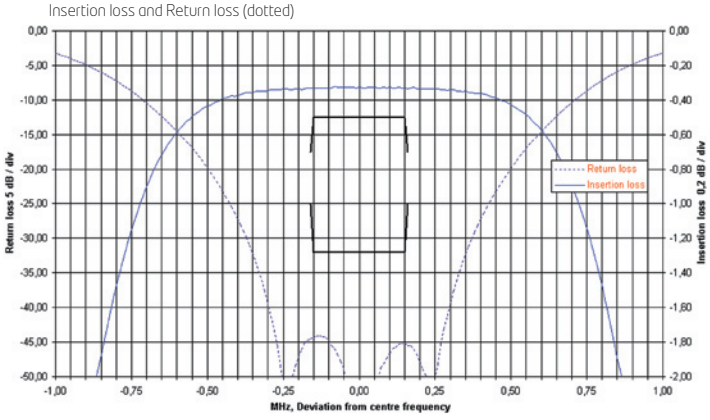
500 W, 3 Cavites

BAND II

10 year GUARANTEE



Insertion loss and Return loss (dotted)



PRODUCT FEATURES

- Flexible and compact
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

Part of a family of filters in 3 cavity combination and ranging in power from 500 W to 10 kW. Used singly as a reflective bandpass filter or as part of a channel combiner they provide channel isolation for channels as close as 1 MHz (closer channel spacing on request). FM band tunable and simple tuning along with a tuner design that does not use spring fingers ensures a solid reliable product for years of broadcast service.

ARTICLE	BPF2-3C06-A001
FREQUENCY	87 - 108 MHz
MAX INPUT POWER	500 W
IMPEDANCE	50 Ohm
VSWR	<1.05 (>32 dB)
INSERTION LOSS	
Centre frequency	<0.7 dB
BANDWIDTH	
±200 kHz	<0.8 dB
STANDARD CONNECTIONS	7/16 DIN
OPTIONAL CONNECTIONS	EIA 1 5/8" or 7/8"
DIMENSIONS	887 x 204 x 68 mm
L x W x H	(35 x 8 x 2.7 in)
WEIGHT	~20 kg (44 lb)

Exir Broadcasting P +46 415 164 00 F +46 415 166 01 info@exirbroadcasting.com www.exirbroadcasting.com

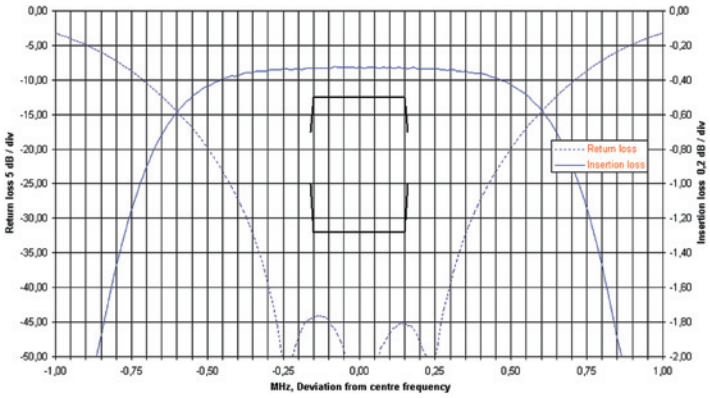
FM Bandpass filter

2 kW, 3 Cavites

BAND II

10 year GUARANTEE

Insertion loss and Return loss (dotted)



PRODUCT FEATURES

- Flexible and compact
- Temperature stabilised
- Retunable
- 10-year comprehensive warranty
- Temperature compensated

PRODUCT PROFILE

Part of a family of filters in 3 cavity combination and ranging in power from 500 W to 10 kW. Used singly as a reflective bandpass filter or as part of a channel combiner they provide channel isolation for channels as close as 1 MHz (closer channel spacing on request). FM band tunable and simple tuning along with a tuner design that does not use spring fingers ensures a solid reliable product for years of broadcast service.

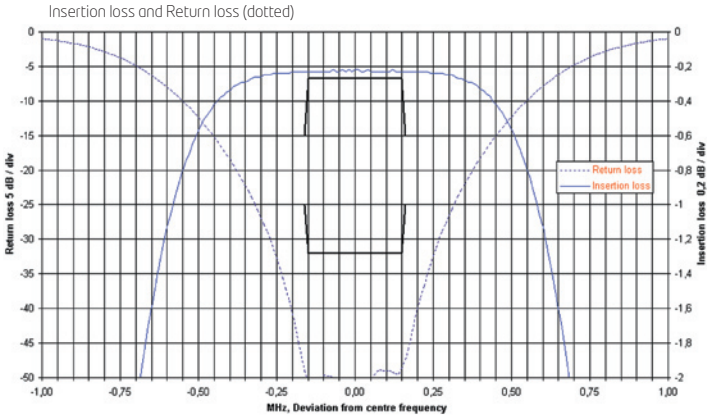
ARTICLE	BPF2-3C11-A001	BPF2-3C11-A002
FREQUENCY	87 - 108 MHz	87 - 108 MHz
MAX INPUT POWER	2 kW	1,25 kW
IMPEDANCE	50 Ohm	50 Ohm
VSWR	<1.05 (>32 dB)	<1.05 (>32 dB)
INSERTION LOSS		
Centre frequency	<0.35 dB	<0.95 dB
BANDWIDTH		
±200 kHz	<0.45 dB	<1.2 dB
STANDARD CONNECTIONS	EIA 1 5/8"	EIA 1 5/8"
OPTIONAL CONNECTIONS	7/8" or 7/16 DIN	7/8" or 7/16 DIN
DIMENSIONS	887 x 324 x 108 mm	887 x 324 x 108 mm
L x W x H	(35 x 12.7 x 4.25 in)	(35 x 12.7 x 4.25 in)
WEIGHT	25 kg (55 lb)	25 kg (55 lb)
		Sharp tuned and Temperature comp.

FM Bandpass filter

5 kW, 3 Cavites

BAND II

10 year GUARANTEE



PRODUCT FEATURES

- Flexible and compact
- Temperature stabilised
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

Part of a family of filters in 3 cavity combination and ranging in power up to 5 kW. Used singly as a reflective bandpass filter or as part of a channel combiner they provide channel isolation for channels as close as 1 MHz (closer channel spacing on request). FM band tunable and simple tuning along with a tuner design that does not use spring fingers ensures a solid reliable product for years of broadcast service.

ARTICLE	BPF2-3C20-A001	BPF2-3C20-A002
FREQUENCY	87 - 108 MHz	87 - 108 MHz
MAX INPUT POWER	5 kW	4 kW
IMPEDANCE	50 Ohm	50 Ohm
VSWR	<1.05 (>32 dB)	<1.05 (>32 dB)
INSERTION LOSS		
Centre frequency	<0.25 dB	<0.40 dB
BANDWIDTH		
± 200 kHz	<0.35 dB	<0.60 dB
STANDARD CONNECTION	EIA 3 1/8"	EIA 3 1/8"
DIMENSIONS	891 x 611 x 228 mm	891 x 611 x 228 mm
L x W x H	(35.1 x 24 x 9 in)	(35.1 x 24 x 9 in)
WEIGHT	55 kg (121.3 lb)	55 kg (121.3 lb)
		Sharp tuned and Temperature comp.

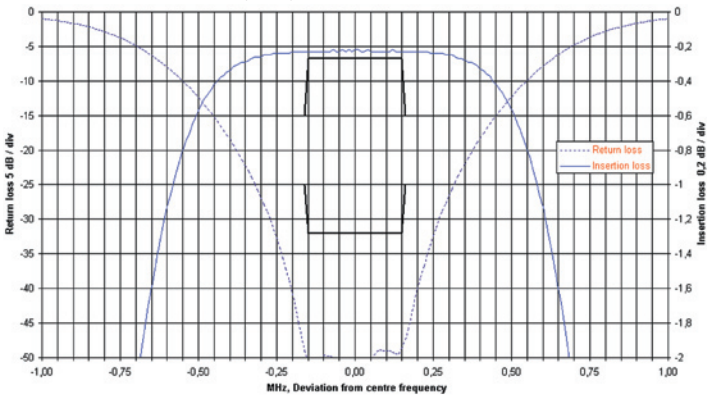
FM Bandpass filter

10 kW, 2 and 3 Cavites

BAND II

10 year GUARANTEE

Insertion loss and Return loss (dotted)



PRODUCT FEATURES

- Flexible and compact
- Temperature stabilised
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

Part of a family of filters in 3 cavity combination and ranging in power up to 10 kW. Used as a reflective bandpass filter or as part of a channel combiner, they provide channel isolation for channels as close as 1 MHz (closer channel spacing on request). FM band tunable and simple tuning along with a tuner design that does not use spring fingers ensures a solid reliable product for years of broadcast service.

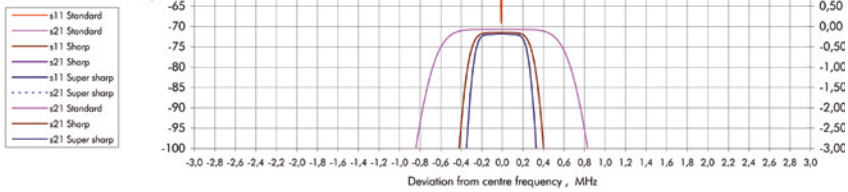
ARTICLE	BPF2-3C35-A001	BPF2-3C35-A002
FREQUENCY	87 - 108 MHz	87 - 108 MHz
MAX INPUT POWER	10 kW	8 kW
IMPEDANCE	50 Ohm	50 Ohm
VSWR	<1.05 (>32 dB)	<1.05 (>32 dB)
INSERTION LOSS		
Centre frequency	<0.15 dB	<0.25 dB
BANDWIDTH		
± 200 kHz	<0.25 dB	<0.45 dB
STANDARD CONNECTION	EIA 3 1/8"	EIA 3 1/8"
DIMENSIONS	891 x 932 x 348 mm	891 x 932 x 348 mm
L x W x H	(35.1 x 36 x 13 in)	(35.1 x 36 x 13 in)
WEIGHT	~70 kg (154.3 lb)	~70 kg (154.3 lb)
		Sharp tuned and Temperature comp.

FM Bandpass filter

30 kW, 3 Cavites

BAND II

10 year GUARANTEE



PRODUCT FEATURES

- High power
- Temperature stabilised
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

High power temperature stabilised FM filters with 3 cavities, capable to handling power up to 33 kW. Used as a reflective band pass filter or as part of a channel combiner, they provide channel isolation for channels as close as 800 kHz. FM band tunable and simple tuning along with a tuner design that does not use spring fingers ensures a solid reliable-product for years of broadcast service.

ARTICLE	BPF2-3C53-AA00	BPF2-3C53-AC00
FREQUENCY	87-108 MHz	87-108 MHz
MAX INPUT POWER	33 kW	25 kW
IMPEDANCE	50 Ohm	50 Ohm
VSWR	<1.05 (>32 dB)	<1.05 (>32 dB)
INSERTION LOSS		
Centre frequency	0,1 dB	0,1 dB
BANDWIDTH		
± 200 kHz	0,1 dB	0,1 dB
STANDARD CONNECTION	RL98	RL98
DIMENSIONS	919 x 622 x 1632 mm	919 x 622 x 1632 mm
L x W x H	(36.2 x 24.5 x 64.3 in)	(36.2 x 24.5 x 64.3 in)
WEIGHT	250 kg (551 lb)	250 kg (551 lb)
		Aluminum resonator

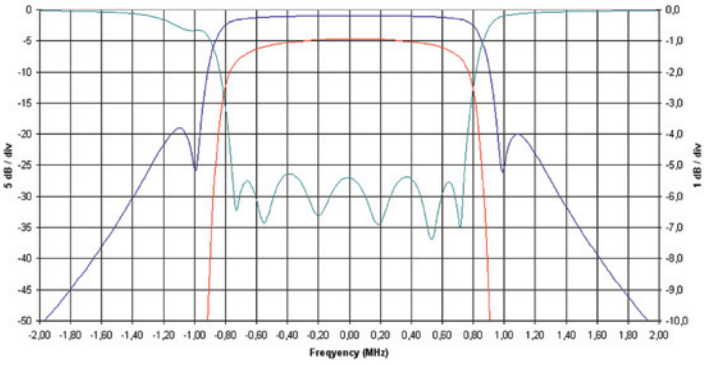
DAB/DMB BANDPASS FILTER

BAND III

10 year GUARANTEE

1 kW rms, 6 Cavities

Insertion loss (blue) and Return loss (green)



PRODUCT FEATURES

- Two physical notches
- Flexible design
- Extremely stable
- Low insertion loss
- Temperature compensated
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

This filter is developed to meet the critical specifications when combining adjacent DAB blocks. The rigid aluminium case, temperature compensation and broadband design have significant advantages over our competition.

ARTICLE	BPF3-6C14-AA00 (With notch)
FREQUENCY	174 - 240 MHz
MAXIMUM INPUT POWER	1 kW rms
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS	
Centre frequency	<0.9 dB
±0.77 MHz	<2.0 dB
±0.97 MHz	>20 dB
±1.75 MHz	>44 dB
±3.00 MHz	>72 dB
STANDARD CONNECTION	EIA 1 5/8
OPTIONAL CONNECTIONS	7/8" or 7/16 DIN
DIMENSIONS	550 - 670 x 1165 x 212 mm
L x W x H	(21.6 - 26.4 x 45.9 x 8.3 in)
WEIGHT	43 kg (94.8 lb)

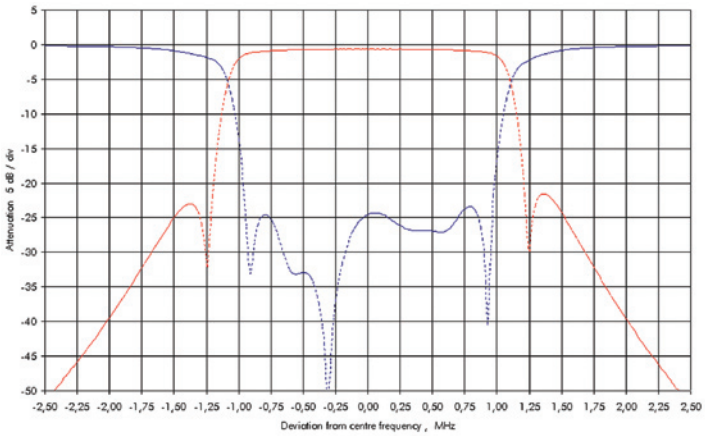
DAB/DMB Bandpass filter

2 kW rms, 6 Cavities

BAND III

10 year GUARANTEE

Insertion loss (red) and Return loss (blue)



PRODUCT FEATURES

- Two physical notches
- Flexible design
- Extremely stable
- Low insertion loss
- Temperature compensated
- 2 physical notches
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

This filter is developed to meet the critical specifications that apply when combining adjacent DAB blocks. A winning combination of broadband design, temperature compensation and sturdy aluminium case, provides significant advantages over our competition. The filter is fully tunable over the DAB frequency range (Band III), and contains a total of eight cavities, two of which function as physical notches for achieving exceptionally sharp filtering. This makes the filter very well suited for applications involving the combining of adjacent DAB channels.

ARTICLE	BPF3-6C20-AB00
FREQUENCY	174 - 240 MHz
MAXIMUM INPUT POWER	2 kW rms
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS Centre frequency	<1.0 dB
±0.77 MHz	<1.8 dB
±0.97 MHz	>20 dB
±1.75 MHz	>44 dB
±3.00 MHz	>70 dB
STANDARD CONNECTION	EIA 3 1/8"
OPTIONAL CONNECTION	EIA 1 5/8"
DIMENSIONS	831 x 521 x 535-585 mm
L x W x H	(32.7 x 17 x 21-23 in)
WEIGHT	~50 kg (110 lb)

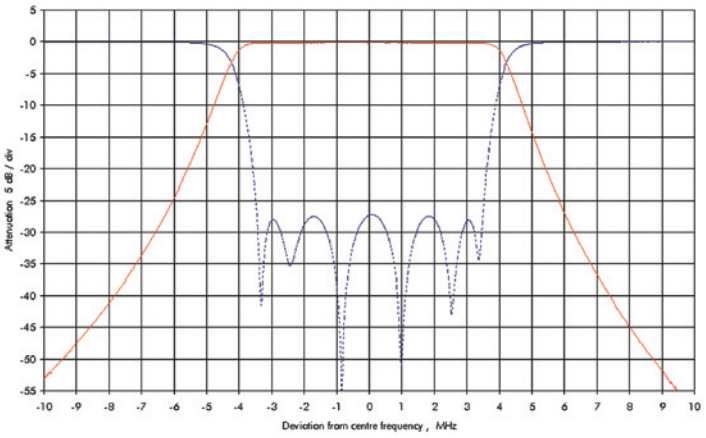
VHF Bandpass filter

4 kW rms, 6 Cavities

BAND III

10 year GUARANTEE

Insertion loss (red) and Return loss (blue)



PRODUCT FEATURES

- Avilable with Cross-coupling
- Compact design
- Extremely stable
- Low insertion loss
- Temperature compensated
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

This VHF filter from Exir Broadcasting meets the demands from broadcasters for low loss, high rejection and temperature stability. Combining all the best features of various technologies we have developed a compact unit with increased reliability and performance as well as plenty of flexibility for multi-function operations.

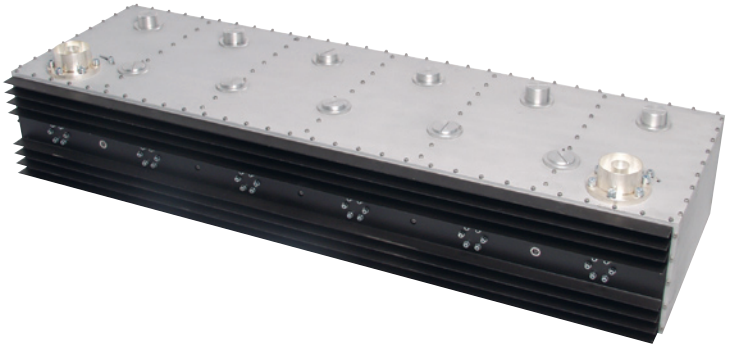
ARTICLE	BPF3-6C20-AA00	
FREQUENCY	174 - 240 MHz	
MAXIMUM INPUT POWER	4 kW rms	
IMPEDANCE	50 Ohm	
VSWR	<1.15	
INSERTION LOSS	**No Cross-coupling**	**Cross-coupling**
Centre frequency	<0.2 dB	<0.2 dB
±3.8 MHz	<0.35 dB	<0.2 dB
±4.2 MHz	>1 dB	>1.3 dB
±6.0 MHz	>24 dB	>16.6 dB
±12.0 MHz	>65 dB	>26 dB
STANDARD CONNECTION	EIA 1 5/8" or 3 1/8"	
DIMENSIONS	668 x 421 x 483-573 mm	
L x W x H	(26 x 17 x 19-23 in)	
WEIGHT	~40 kg (88 lb)	

VHF Bandpass filter

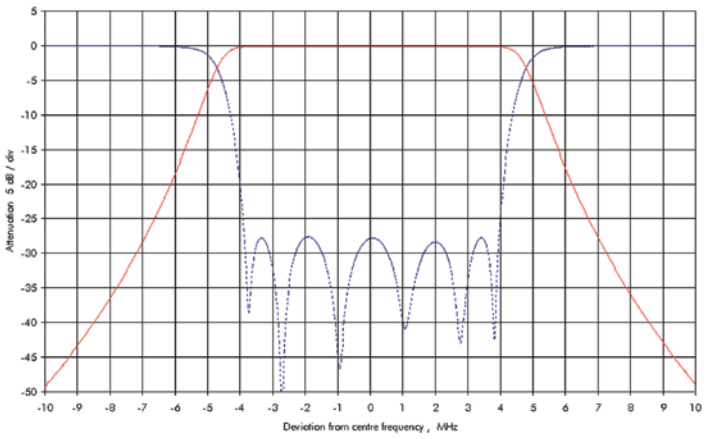
7 kW rms, 6 Cavities

BAND III

10 year GUARANTEE



Insertion loss (red) and Return loss (blue)



PRODUCT FEATURES

- Extremely stable
- Low insertion loss
- Temperature compensated
- Available with notches
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

The rigid aluminium case, temperature compensation and broadband design have significant advantages over our competition, in a range of compact, temperature stabilised filters.

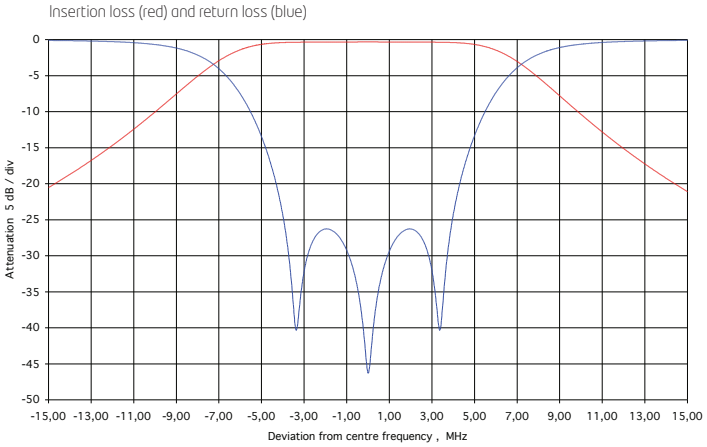
ARTICLE	BPF3-6C25-A003
FREQUENCY	174 - 240 MHz
MAXIMUM INPUT POWER	7 kW rms
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS	
Centre frequency	<0.15 dB
±3.8 MHz	<0.2 dB
±4.2 MHz	>0.5 dB
±6.0MHz	>19 dB
±12.0 MHz	>60 dB
STANDARD CONNECTION	EIA 3 1/8"
OPTIONAL CONNECTION	EIA 1 5/8"
DIMENSIONS	1410 x 500 x 365 mm
L x W x H	(55.5 x 19.6 x 14.4 in)
WEIGHT	~70 kg (154 lb)

UHF BANDPASS FILTER

50 W rms, 3-pole

BAND IV-V

10 year GUARANTEE



PRODUCT FEATURES

- Small size
- 19" rack-mountable
- Low insertion loss
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

Built with special space-saving techniques and combining many of the best elements from various technologies, this filter meets the demands of broadcasters today where space is a cost and cannel change is a demand. The filter is very easy to retune, small and compact and allows for easy mounting in a 19" rack, either separately or as part of a compact combiner system.

ARTICLE	BPF4-3C04-AA00
FREQUENCY	470 - 860 MHz
MAXIMUM INPUT POWER	50W rms
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS	
Centre frequency	<0.4 dB
± 3.8 MHz	<0.5 dB
± 4.2 MHz	>0.5 dB
± 6.0 MHz	>1.5 dB
± 12.0 MHz	>15 dB
± 20.0 MHz	>30 dB
DIMENSIONS	218 x 43.3 x 130 mm
L x W x H	(8.6 x 1.7 x 5.1 in)
WEIGHT	~1.3 kg (2.9 lb)

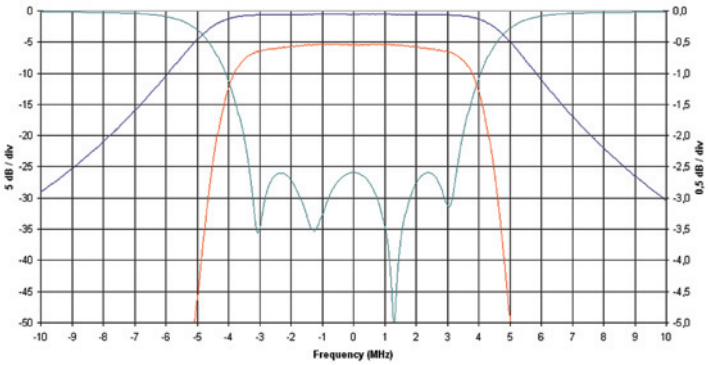
UHF Bandpass filter

200 and 250 W rms, 4 Cavities

BAND IV-V

10 year GUARANTEE

Insertion loss and Return loss 470-860 MHz tuned to ch 23



PRODUCT FEATURES

- Small size
- Compact design
- Low insertion loss
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

This low-power filter provides exceptional performance and system flexibility, and is tunable over the UHF band with 6, 7 and 8 MHz bandwidth. The filter ensures excellent results in bandpass and channel combining applications. Also available with black finish for handling up to 250 W of input power.

ARTICLE	BPF4-4C05-AB00 / BPF4-4C05-AC00
FREQUENCY	470 - 860 MHz
MAXIMUM INPUT POWER	200 / 250 W rms
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS, NARROWBAND	
Centre frequency	<0.5 dB
±3.8 MHz	<0.6 dB
±4.2 MHz	>0.7 dB
±6.0 MHz	>5 dB
±12.0 MHz	>30 dB
STANDARD CONNECTION	RL 7/8" unflanged
OPTIONAL CONNECTIONS	DIN 7/16 m/f, N m/f
DIMENSIONS	150 x 120 x 210-300 mm
L x W x H	(5.9 x 4.7 x 8.3-11.8 in)
WEIGHT	3.6 kg (7.9 lb)

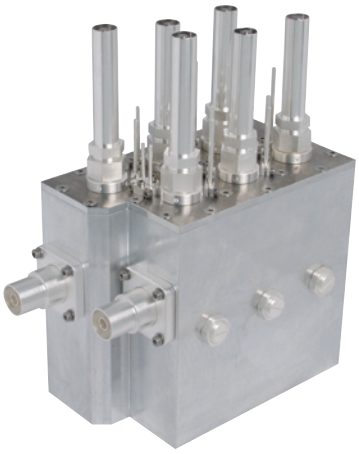
Exir Broadcasting P +46 415 164 00 F +46 415 166 01 info@exirbroadcasting.com www.exirbroadcasting.com

UHF Bandpass filter

200 and 250 W rms, 6 Cavities

BAND IV-V

10 year GUARANTEE



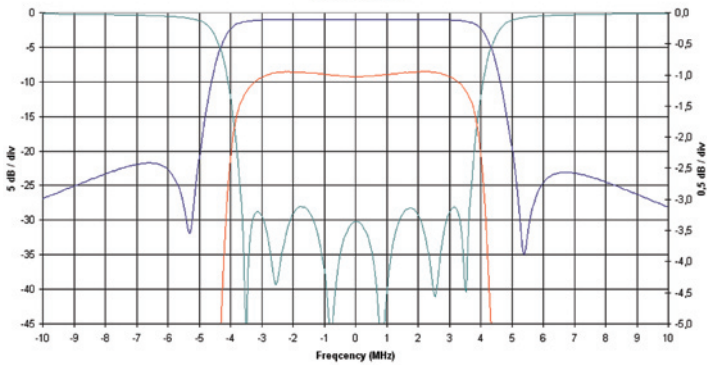
PRODUCT FEATURES

- Available with cross-coupling
- Small size
- Compact design
- Low insertion loss
- Available with temperature compensation
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

This low-power filter provides exceptional performance and system flexibility. It is tunable over the UHF band with 6, 7 and 8 MHz bandwidth without requiring any replacement of parts. The filter ensures excellent results in bandpass and channel combining applications. Temperature compensation is optional for achieving even greater filter stabilisation and reliability. Also available with black finish for handling up to 250 W of input power.

Insertion loss and Return loss 470-860 MHz tuned to ch 21



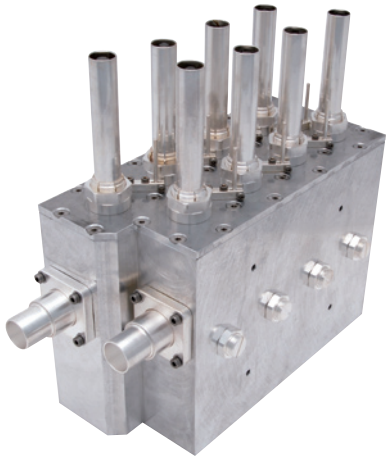
ARTICLE	BPF4-6C05-AB00 / BPF4-6C05-AC00	BPF4-6C05-AB01 / BPF4-6C05-AC01
FREQUENCY	470 - 860 MHz	470 - 860 MHz
MAXIMUM INPUT POWER	200 / 250 W rms	200 / 250 W rms
IMPEDANCE	50 Ohm	50 Ohm
VSWR	<1.1 (>26 dB)	<1.15 (>23 dB)
INSERTION LOSS, NARROWBAND	**No Cross-coupling**	**Cross-coupling**
Centre frequency	<1.0 dB	<1.2 dB
±3.8 MHz	<1.5 dB	<1.6 dB
±4.2 MHz	>2.0 dB	>3.0 dB
±6.0 MHz	>20 dB	>22 dB
±12.0 MHz	>60 dB	>28 dB
STANDARD CONNECTION	7/8" RL unflanged	7/8" RL unflanged
OPTIONAL CONNECTIONS	DIN 7/16 m/f or N m/f	DIN 7/16 m/f or N m/f
DIMENSIONS	200 x 120 x 210-300 mm	200 x 120 x 210-300 mm
L x W x H	(7.9 x 4.7 x 8.3-11.8 in)	(7.9 x 4.7 x 8.3-11.8 in)
WEIGHT	4.6 kg (10.1 lb)	4.6 kg (10.1 lb)

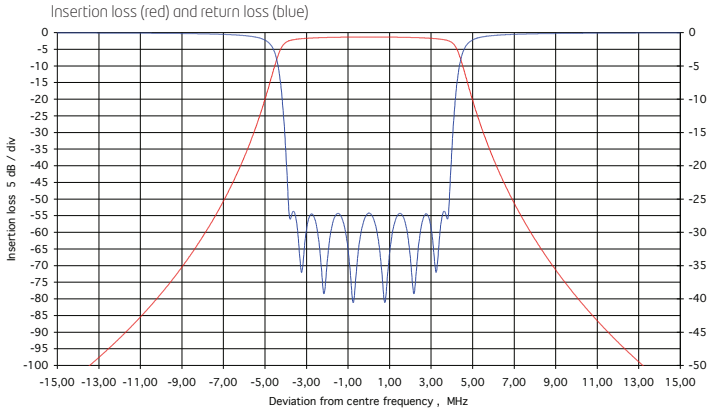
UHF Bandpass filter

200 and 250 W rms, 8 Cavities

BAND IV-V

10 year GUARANTEE





PRODUCT FEATURES

- Small size
- Compact design
- Low insertion loss
- Available with temperature compensation
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

This low-power filter provides exceptional performance and system flexibility. It is tunable over the UHF band with 6, 7 and 8 MHz bandwidth without requiring any replacement of parts. The filter ensures excellent results in bandpass and channel combining applications. Temperature compensation is optional for achieving even greater filter stabilisation and reliability.

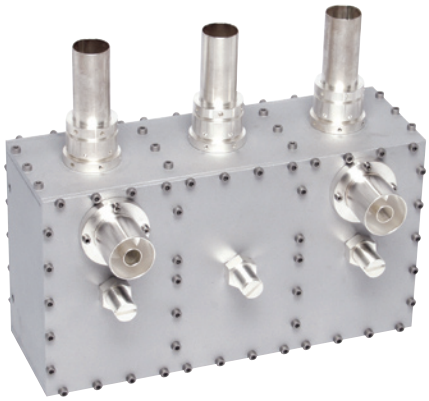
ARTICLE	BPF4-8C05-AA00
FREQUENCY	470 - 860 MHz
MAXIMUM INPUT POWER	200 W rms
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS, NARROWBAND	
Centre frequency	<1.3 dB
±3.8 MHz	<2.5 dB
±4.2 MHz	>4.2 dB
±6.0 MHz	>37 dB
±12.0 MHz	>90 dB
STANDARD CONNECTION	7/8" RL unflanged
OPTIONAL CONNECTIONS	DIN 7/16 m/f or N m/f
DIMENSIONS	290 x 120 x 210-300 mm
L x W x H	(11.4 x 4.7 x 8.3-11.8 in)
WEIGHT	6 kg (13.2 lb)

UHF Bandpass filter

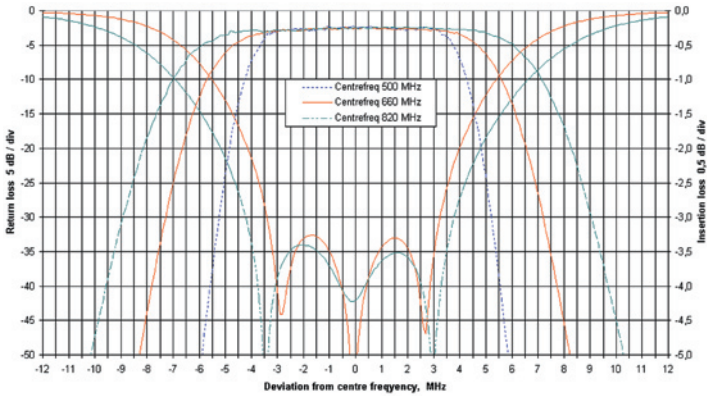
750 W rms, 3 Cavities

BAND IV-V

10 year GUARANTEE



Insertion loss and return loss



PRODUCT FEATURES

- Small size
- Extremely stable
- Low insertion loss
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

Fulfilling the requirement for low power and small size these filters make no compromise to performance. UHF band tunable and used in numerous UHF channel combiners, these filters continue a tradition of reliability and function of sound engineering design.

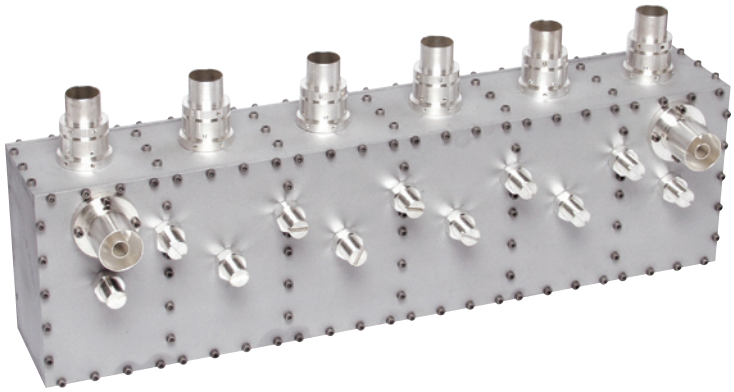
ARTICLE	BPF4-3C11-A001
FREQUENCY	470 - 860 MHz
MAXIMUM INPUT POWER	750 W rms
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS	
Centre frequency	<0.25 dB
±3.8 MHz	<0.3 dB
±4.2 MHz	>0.6 dB
±6.0 MHz	>3 dB
±12.0 MHz	>20 dB
±20.0 MHz	
STANDARD CONNECTION	EIA 1 5/8" unflanged
OPTIONAL CONNECTION	7/16 DIN
DIMENSIONS	300 x 362 x 200 mm
L x W x H	(11.8 x 14.2 x 7.9 in)
WEIGHT	6 kg (13 lb)

UHF Bandpass filter

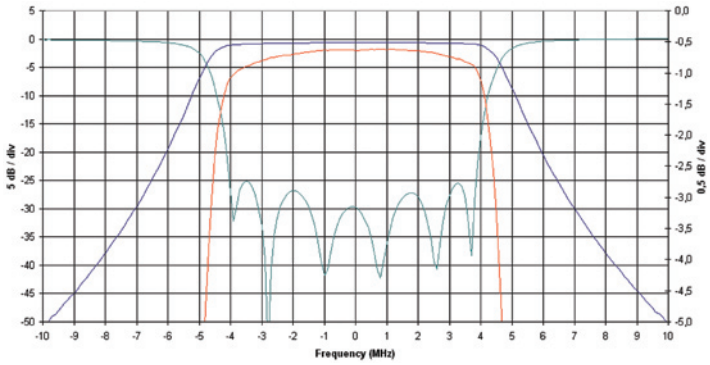
750 W rms, 6 Cavities

BAND IV-V

10 year GUARANTEE



Insertion loss (blue) and return loss (green)



PRODUCT FEATURES

- Flexible design
- Extremely stable
- Low insertion loss
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

This well-proven design has been used extensively for filtering and combining of multi-channel digital and analogue combiners. Broadband UHF tunable and our trade mark tuner technology in a rugged aluminium case make this filter a popular choice for lower power combining systems.

ARTICLE	BPF4-6C11-A001
FREQUENCY	470 - 860 MHz
MAXIMUM INPUT POWER	750 W rms
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS	
Centre frequency	<0.5 dB
±3.8 MHz	<0.8 dB
±4.2 MHz	>1.2 dB
±6.0 MHz	>20 dB
±12.0 MHz	>60 dB
STANDARD CONNECTION	EIA 1 5/8" unflanged
OPTIONAL CONNECTION	7/16 DIN
DIMENSIONS	715 x 200 x 300 mm
L x W x H	(28.1 x 7.9 x 11.8 in)
WEIGHT	~17 kg (37 lb)

UHF Bandpass filter

1.5 kW rms, 4 Cavities

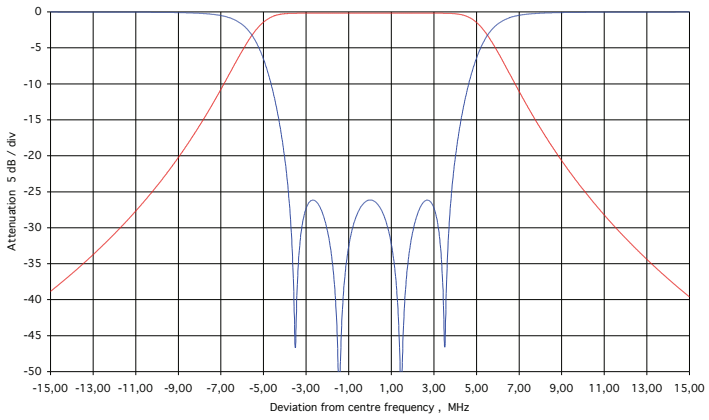
BAND IV-V

10 year GUARANTEE

PRODUCT FEATURES

- Small size
- 19" rack-mountable
- Any combination of connections
- Extremely stable
- Low insertion loss
- Temperature compensated
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

Insertion loss (red) and return loss (blue)



PRODUCT PROFILE

Built with special space-saving techniques and combining many of the best elements from various technologies, this filter meets all of the demands of broadcasters today. Not only does it feature low loss, high rejection and temperature stability, but it is also very small in relation to output power. This allows for easy mounting in a 19" rack either separately or as part of a compact combiner system. For even greater convenience, the filter can be ordered with inputs and outputs of different sizes and types, enabling customers to mix and match connections to suit any need.

ARTICLE	BPF4-4C14-AA00
FREQUENCY	470 - 860 MHz
MAXIMUM INPUT POWER	1.5 kW rms
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS	
Centre frequency	0.25 dB
±3.8 MHz	<0.3 dB
±4.2 MHz	>0.3 dB
±6.0 MHz	>4.5 dB
±12.0 MHz	>30 dB
STANDARD CONNECTIONS	EIA 1 5/8" unflanged
OPTIONAL CONNECTIONS	DIN 7/16 f/m, EIA 3 1/8" unflanged
DIMENSIONS	373 x 335 x 303 (max) mm
L x W x H	(14.7 x 13.2 x 11.9 in)
WEIGHT	~18 kg (55 lb)

UHF Bandpass filter

1.5 kW rms, 6 Cavities

BAND IV-V

10 year GUARANTEE

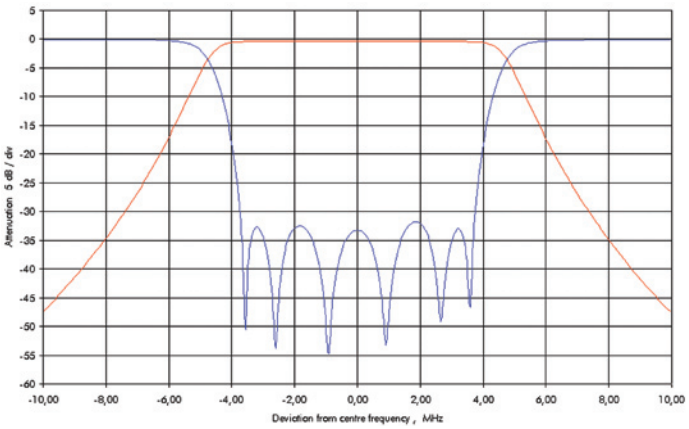
PRODUCT FEATURES

- Available with cross-coupling
- Small size
- 19" rack-mountable
- Any combination of connections
- Extremely stable
- Low insertion loss
- Temperature compensated
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

Built with special space-saving techniques and combining many of the best elements from various technologies, this filter meets all of the demands of broadcasters today. Not only does it feature low loss, high rejection and temperature stability, but it is also very small in relation to output power. This allows for easy mounting in a 19" rack either separately or as part of a compact combiner system. For even greater convenience, the filter can be ordered with inputs and outputs of different sizes and types, enabling customers to mix and match connections to suit any need.

Insertion loss (red) and return loss (blue)



ARTICLE	BPF4-6C14-AF00		
FREQUENCY	470 - 860 MHz		
MAXIMUM INPUT POWER	1.5 kW rms		
IMPEDANCE	50 Ohm		
VSWR	<1.1 (>26 dB)	<1.17 (>22 dB)	<1.17 (>22 dB)
INSERTION LOSS	**No crosscoupling**	**Crosscoupling single**	**Crosscoupling double**
Centre frequency	<0.4 dB	<0.35 dB	<0.35 dB
±3.8 MHz	<0.6 dB	<0.8 dB	<1.0 dB
±4.2 MHz	>1.0 dB	>2.6 dB	>8.0 dB
±6.0 MHz	>20 dB	>18 dB	>30 dB
±12.0 MHz	>60 dB	>40 dB	>32 dB
STANDARD CONNECTIONS	EIA 1 5/8" unflanged		
OPTIONAL CONNECTIONS	DIN 7/16 f/m, EIA 3 1/8" unflanged		
DIMENSIONS	513 x 335 x 233-303 mm		
L x W x H	(20.3 x 13.2 x 11.9 in)		
WEIGHT	~25 kg (55 lb)		

UHF Bandpass filter

1 kW rms, 8 Cavities

BAND IV-V

10 year GUARANTEE

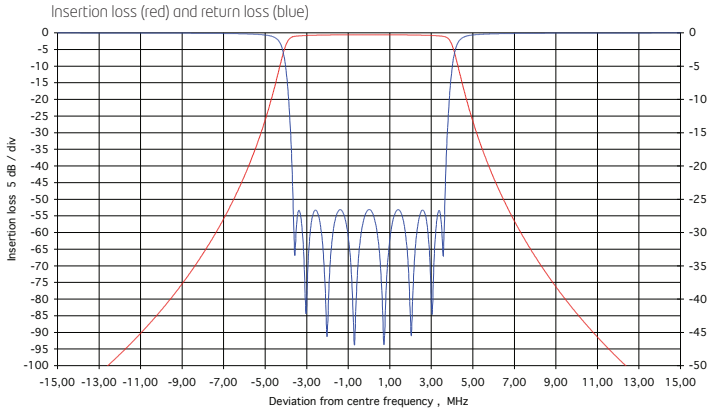
PRODUCT FEATURES

- Available with cross-coupling
- Flexible and compact
- 19" rack-mountable
- Any combination of connections
- Extremely stable
- Low insertion loss
- Suitable for adjacent channels
- Possible critical mask compliant (depending on tx & tuning)
- Temperature compensated
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

Built with special space-saving techniques and combining many of the best elements from various technologies, this filter meets all of the demands of broadcasters today. Not only does it feature low loss, high rejection and temperature stability, but it is also very small in relation to output power. This allows for easy mounting in a 19" rack either separately or as part of a compact combiner system. For even greater convenience, the filter can be ordered with inputs and outputs of different sizes and types, enabling customers to mix and match connections to suit any need.

Eight cavities with cross-coupling in all make it possible to achieve critical mask compliance depending on tx performance. In addition, the sharp quality of this filter makes it ideal for use when combining adjacent channels.



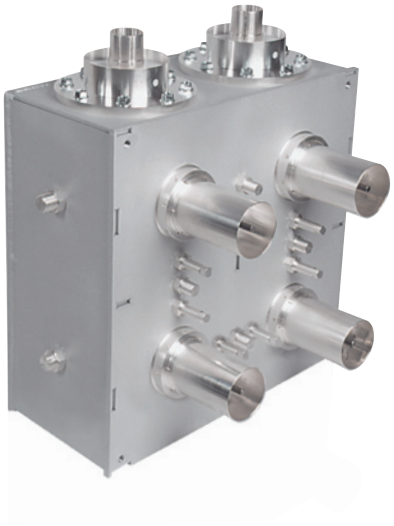
ARTICLE	BPF4-8C14-AA00		
FREQUENCY	470 - 860 MHz		
MAXIMUM INPUT POWER	1.5 kW rms		
IMPEDANCE	50 Ohm		
VSWR	<1.1 (>26 dB)	<1.17 (>22 dB)	<1.17 (>22 dB)
INSERTION LOSS	**No Cross-coupling**	**Cross-coupling single**	**Cross-coupling double**
Centre frequency	<0.55 dB	<0.55 dB	<0.50 dB
±3.8 MHz	<1.0 dB	<1.45 dB	<1.6 dB
±4.2 MHz	>2.5 dB	>11 dB	>15 dB
±6.0 MHz	>36 dB	>32 dB	>45 dB
±12.0 MHz	>90 dB	>70 dB	>60 dB
STANDARD CONNECTIONS	EIA 1 5/8" unflanged		
OPTIONAL CONNECTIONS	EIA 3 1/8" unflanged or DIN 7/16 f/m		
DIMENSIONS	659 x 335 x 303 (max) mm		
L x W x H	(26 x 13.2 x 11.9 in)		
WEIGHT	~35 kg (77.2 lb)		

UHF Bandpass filter

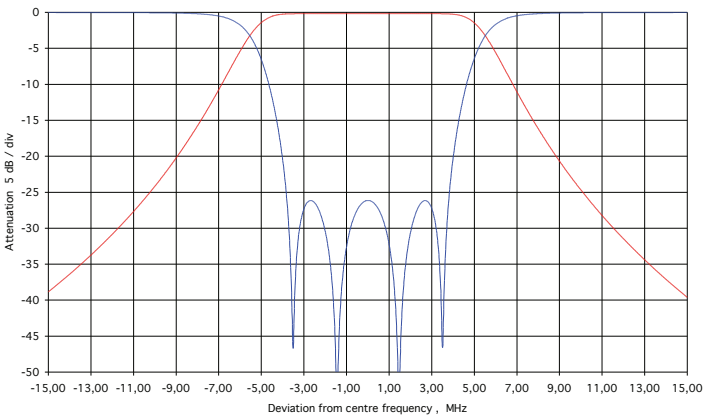
2.5 kW rms, 4 Cavities

BAND IV-V

10 year GUARANTEE



BPF4-4C20-AA00 insertion loss (red) and return loss (blue)



PRODUCT FEATURES

- Small size
- 19" rack-mountable
- Any combination of connections
- Extremely stable
- Low insertion loss
- Temperature compensated
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

Built with special space-saving techniques and combining many of the best elements from various technologies, this filter meets all of the demands of broadcasters today. Not only does it feature low loss, high rejection and temperature stability, but it is also very small in relation to output power. This allows for easy mounting in a 19" rack either separately or as part of a compact combiner system. For even greater convenience, the filter can be ordered with inputs and outputs of different sizes and types, enabling customers to mix and match connections to suit any need.

ARTICLE	BPF4-4C20-AA00
FREQUENCY	470 - 860 MHz
MAXIMUM INPUT POWER	2.5 kW rms
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS	
Centre frequency	<0.2 dB
±3.8 MHz	<0.25 dB
±4.2 MHz	>0.35 dB
±6.0 MHz	>4.5 dB
±12.0 MHz	>30 dB
STANDARD CONNECTIONS	RL 98
OPTIONAL CONNECTIONS	EIA 3 1/8" unflanged EIA 1 5/8" unflanged
DIMENSIONS	468 x 460 x 318 (max) mm
L x W x H	(18.4 x 18.1 x 12.5 in)
WEIGHT	~24 kg (53 lb)

UHF Bandpass filter

2.5 kW rms, 6 Cavities

BAND IV-V

10 year GUARANTEE

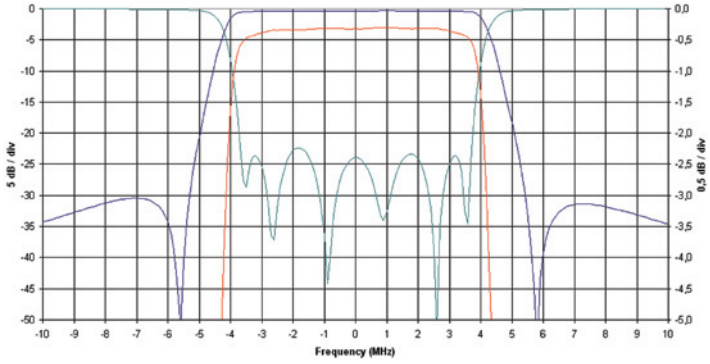
PRODUCT FEATURES

- Available with cross-coupling
- Flexible design
- Extremely stable
- Low insertion loss
- Filter for critical mask
- Temperature compensated
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

This popular filter from Exir Broadcasting meets the demands from broadcasters for low loss, high rejection and temperature stability. Combining all the best features of various technologies we have developed a compact unit with increased reliability and performance and the flexibility for multi-function operations. In addition, the filter can be easily retuned to any channel within the UHF band to accommodate any future needs that may arise.

Insertion loss (blue) and return loss (green)



ARTICLE	BPF4-6C20-AB00		
FREQUENCY	470 - 860 MHz		
MAXIMUM INPUT POWER	2.5 kW rms		
IMPEDANCE	50 Ohm		
VSWR	<1.1 (>26 dB)	<1.17 (>22 dB)	<1.17 (>22 dB)
INSERTION LOSS	**No crosscoupling**	**Crosscoupling single**	**Crosscoupling double**
Centre frequency	<0.3 dB	<0.3 dB	<0.3 dB
±3.8 MHz	<0.5 dB	<0.6 dB	<0.5 dB
±4.2 MHz	>0.9 dB	>2.3 dB	>0.9 dB
±6.0 MHz	>20 dB	>18 dB	>30 dB
±12.0 MHz	>60 dB	>40 dB	>32 dB
STANDARD CONNECTION	RL98		
OPTIONAL CONNECTIONS	EIA 3 1/8", EIA 1 5/8" unflanged		
DIMENSIONS	668 x 460 x 248-318 mm		
L x W x H	(26 x 17 x 11 in)		
WEIGHT	~34 kg (75 lb)		

UHF Bandpass filter

2.5 kW rms, 8 Cavities

BAND IV-V

10 year GUARANTEE

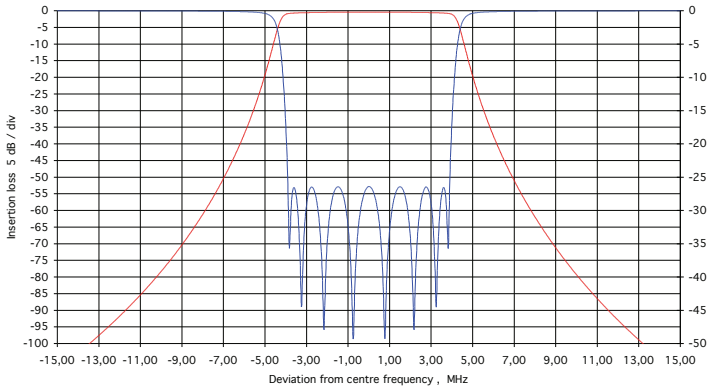
PRODUCT FEATURES

- Available with cross-coupling
- Flexible design
- Extremely stable
- Low insertion loss
- Filter for critical mask
- Temperature compensated
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

This filter from Teracom Components meets the demands from broadcasters for low loss, high rejection and temperature stability. Combining all the best features of various technologies we have developed a compact unit with increased reliability and performance and the flexibility for multi-function operations. In addition, the filter can be easily retuned to any channel within the UHF band to accommodate any future needs that may arise.

BPF4-4C20-AA00 insertion loss (red) and return loss (blue)



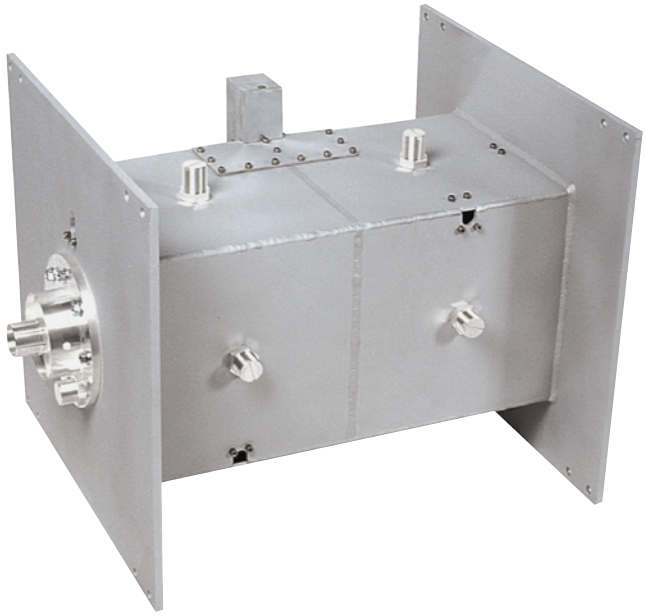
ARTICLE	BPF4-8C20-AA00		
FREQUENCY	470 - 860 MHz		
MAXIMUM INPUT POWER	2.5 kW rms		
IMPEDANCE	50 Ohm		
VSWR	<1.1 (>26 dB)	<1.17 (>24 dB)	<1.17 (>24 dB)
INSERTION LOSS	**No Cross-coupling**	**Cross-coupling single**	**Cross-coupling double**
Centre frequency	<0.45 dB	<0.45 dB	<0.45 dB
±3.8 MHz	<0.8 dB	<1.2 dB	<1.3 dB
±4.2 MHz	>2.4 dB	>11 dB	>16 dB
±6.0 MHz	>36 dB	>33 dB	>45 dB
±12.0 MHz	>90 dB	>70 dB	>60 dB
STANDARD CONNECTION	RL98		
OPTIONAL CONNECTIONS	EIA 3 1/8", 1 5/8" unflange		
DIMENSIONS	900 x 460 x 200-350 mm		
L x W x H	(36 x 18 x 8-14 in)		
WEIGHT	45 kg (100 lb)		

UHF Bandpass filter

3.5 - 12 kW rms, 2 Cavities, Triple-mode

BAND IV-V

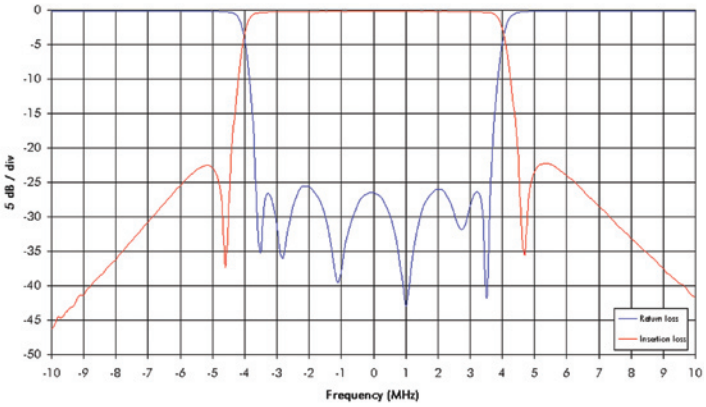
10 year GUARANTEE



PRODUCT FEATURES

- Flexible and compact
- Design based on triple-mode waveguide technology
- Extremely sharp filter characteristics
- Suitable for adjacent channels
- Filter for critical mask
- Temperature compensated
- Adjustable bandwidth for 6, 7 or 8 MHz
- Cross-coupling
- 10-year comprehensive warranty

Insertion loss (red) and return loss (blue)



PRODUCT PROFILE

This waveguide filter combines the advantages of sharp filter characteristics and low loss. The use of triple-mode technology together with Exir Broadcastings' patented temperature compensation has resulted in a very small filter with very high rejection. Performance exceeds that of a standard 6 cavity coaxial filter with double cross-coupling, providing lower insertion loss and higher rejection in a smaller package.This makes the filter ideal for systems requiring high band edge rejection as well as for combining adjacent channels. The filter also features excellent temperature and group delay stability.

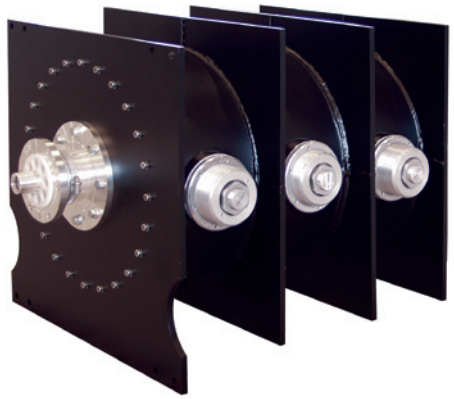
ARTICLE	**BPF4-2TWG-AA00**
FREQUENCY	470 - 860 MHz
MAXIMUM INPUT POWER	3.5 - 12 kW rms depending of channel
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS	
Centre frequency	<0.2 dB
±3.8 MHz	<0.8 dB
±4.2 MHz	>8.5 dB
±6.0 MHz	>25 dB
±12.0 MHz	>55 dB
STANDARD CONNECTION	RL98
OPTIONAL CONNECTION	3 1/8"
DIMENSIONS (Varies acc. to channel)	From 500 x 500 x 1000 (20 x 20 x 40 in)
L x W x H	to 300 x 300 x 600 mm (12 x 12 x 24 in)
WEIGHT (Varies acc. to channel)	25-35 kg (55-77 lb)

UHF Bandpass filter

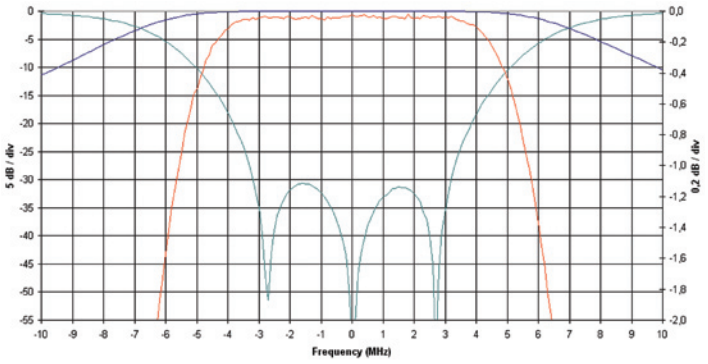
12 and 15 kW rms, 3 Cavities

BAND IV-V

10 year GUARANTEE



Insertion loss (red / blue) and return loss (green)



PRODUCT FEATURES

- Design based on waveguide technology
- Flexible modular design
- Extremely stable
- Low insertion loss
- Suitable for use with IOT or solid state transmitter in combined operation for vision/sound to eliminate out-of-band products
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

These 3 cavity, single-mode, waveguide filters employ the low-loss, high-power characteristics of waveguide technology with coaxial input and output. An ideal reflective filter for analogue and digital transmitters, or as a component within a channel combiner, they provide high rejection and isolation in a sturdy, self-supporting, compact assembly. Available for 12 kW maximum input power as well as with black finish and cooling fins for handling up to 15 kW rms.

ARTICLE	CWG4-3C00-A0 / BPF4-3CWG-AA00
FREQUENCY	470 - 860 MHz
MAXIMUM INPUT POWER (at 25° C)	12 kW rms / 15 kW rms 20 kW peak sync /25 kW peak sync
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS	
Centre frequency	<0.1 dB
±3.8 MHz	<0.1 dB
±4.2 MHz	<0.1 dB
±6.0 MHz	>1.0 dB
±12.0 MHz	>14 dB
STANDARD CONNECTION	RL 98
OPTIONAL CONNECTION	EIA 3 1/8
LENGTH	540 mm (21.3 in)
DIAMETER	Ch 21; 500 mm (20 in)
Varies according to channel	Ch 68; 285 mm (11 in)
WEIGHT	Varies according to channel

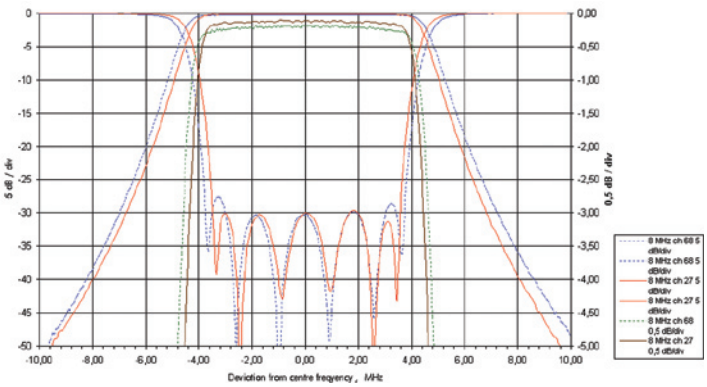
UHF Bandpass filter

12 – 15 kW rms, 6 Cavities

BAND IV-V

10 year GUARANTEE

Insertion loss and return loss



PRODUCT FEATURES

- Design based on waveguide technology
- Flexible modular design
- Low insertion loss
- Available with temperature compensation
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

These 6 cavity, single-mode, waveguide filters employ the low-loss, high-power characteristics of waveguide technology with coaxial input and output. An ideal reflective filter for analogue and digital transmitters, or as a component within a channel combiner, they provide high rejection and isolation in a sturdy, self-supporting, compact assembly. Available for 12 kW maximum input power as well as with black finish and cooling fins for handling up to 15 kW rms.

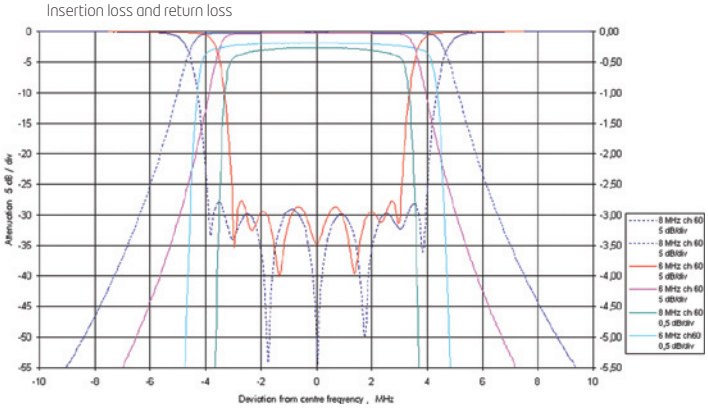
ARTICLE	CWG4-6C00-A001
WITH TEMP. COMPENSATION	**BPF4-6CWG-AA00 / BPF4-6CWG-AB00**
FREQUENCY	470 - 860 MHz
INPUT POWER (at 25° C)	12 / 15 kW rms
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS	
Centre frequency	<0.15 dB
±3.8 MHz	<0.25 dB
±4.2 MHz	>0.5 dB
±6.0 MHz	>20 dB
±12.0 MHz	<60 dB
STANDARD CONNECTIONS	RL 98 or RL 3 1/8
LENGTH	1200 mm (47 in)
DIAMETER	Ch 21; 500 mm (20 in)
Varies according to channel	Ch 68; 285 mm (11 in)
WEIGHT	Varies according to channel

UHF Bandpass filter

12 - 15 kW rms, 7 Cavities

BAND IV-V

10 year GUARANTEE



PRODUCT FEATURES

- Design based on waveguide technology
- Flexible modular design
- 7 cavities for sharp filtering
- Low insertion loss
- Temperature compensated
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

These 7 cavity, single-mode, waveguide filters employ the low-loss, high-power characteristics of waveguide technology with coaxial input and output. An ideal reflective filter for analogue and digital transmitters, or as a component within a channel combiner, they provide high rejection and isolation in a sturdy, self-supporting, compact assembly. Available for 12 kW maximum input power as well as with black finish and cooling fins for handling up to 15 kW rms.

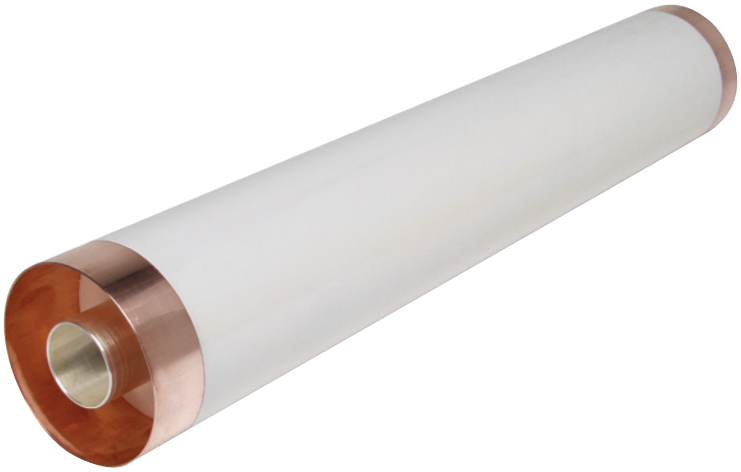
ARTICLE	BPF4-7CWG-AA00 / BPF4-7CWG-AB00
FREQUENCY	470 - 860 MHz
INPUT POWER (at 25° C)	12 / 15 kW rms
IMPEDANCE	50 Ohm
VSWR	<1.1(<26 dB)
INSERTION LOSS	
Centre frequency	<0.2 dB
±3.8 MHz	<0.3 dB
±4.2 MHz	>1 dB
±6.0 MHz	>28 dB
±12.0 MHz	>76 dB
STANDARD CONNECTIONS	RL 98 or RL 3 1/8
LENGTH	1416 mm (55.7 in)
DIAMETER	Ch 21; 500 mm (20 in)
Varies according to channel	Ch 68; 285 mm (11 in)
WEIGHT	Varies according to channel

Low Pass filter

UHF Harmonic Rejection Filter

BAND IV-V

10 year GUARANTEE



PRODUCT FEATURES

- Low insertion loss
- Low VSWR
- Customised solutions
- 10-year comprehensive warranty

PRODUCT PROFILE

Exir Broadcasting manufactures low pass filters for all needs. High pass filters are also available on request.

ARTICLE	LPF4-1116-AA00	LPF4-1116-AB00	LPF4-1139-AA01	LPF4-1139-AB00
FREQUENCY RANGE	470 - 598 MHz	558 - 710 MHz	470 - 598 MHz	574 - 710 MHz
MAX INPUT POWER	1 kW rms	1 kW rms	5 kW rms	5 kW rms
IMPEDANCE	50 Ohm	50 Ohm	50 Ohm	50 Ohm
VSWR	<1.06	<1.06	<1.06	<1.06
INSERTION LOSS	< 0.1 dB	< 0.1 dB	< 0.1 dB	< 0.1 dB
HARMONIC RESPONSE	2nd -50 dB 3rd -50 dB	2nd -50 dB 3rd -50 dB	2nd -50 dB 3rd -50 dB	2nd -50 dB 3rd -50 dB
INTERFACE, PORTS	7/16	7/16	1 5/8"	1 5/8"

ARTICLE	LPF4-1139-AC01	LPF4-1177-AA00	LPF4-1177-AB00	LPF4-1177-AC00
FREQUENCY RANGE	694 - 854 MHz	470 - 582 MHz	558 - 710 MHz	702 - 854 MHz
MAX INPUT POWER	5 kW rms	10 kW rms	10 kW rms	10 kW rms
IMPEDANCE	50 Ohm	50 Ohm	50 Ohm	50 Ohm
VSWR	<1.06	<1.06	<1.06	<1.06
INSERTION LOSS	0.15 dB	0.05 dB	0.05 dB	0.05 dB
HARMONIC RESPONSE	2nd -50 dB 3rd -50 dB	2nd -40 dB 3rd -40 dB	2nd -40 dB 3rd -50 dB	2nd -40 dB 3rd -50 dB
INTERFACE, PORTS	1 5/8"	3 1/8"	3 1/8"	3 1/8"

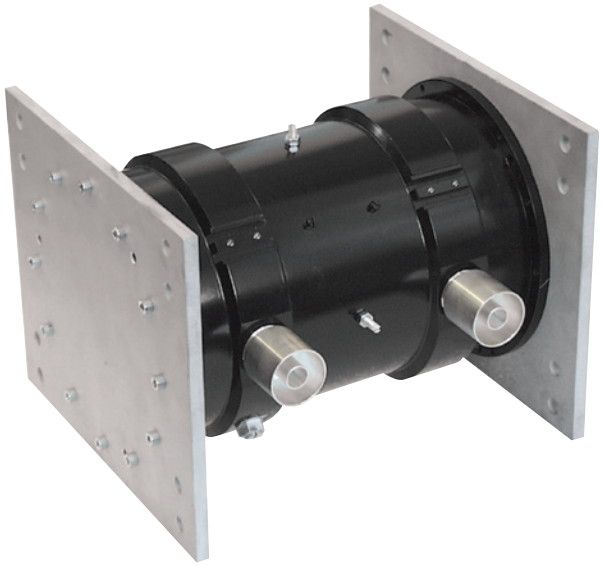
ARTICLE	LPF4-0998-AD00	LPF4-0998-AC00	LPF4-0912-AE00
FREQUENCY RANGE	774 - 854 MHz	702 - 822 MHz	750 - 854 MHz
MAX INPUT POWER	20 kW rms	20 kW rms	30 kW rms
IMPEDANCE	50 Ohm	50 Ohm	50 Ohm
VSWR	<1.06	<1.06	<1.06
INSERTION LOSS	0.1 dB	0.05 dB	0.05 dB
HARMONIC RESPONSE	2nd -50 dB 3rd -50 dB	2nd -35 dB 3rd -50 dB	2nd -50 dB 3rd -50 dB
INTERFACE, PORTS	RL 98	RL 98	NAX 120

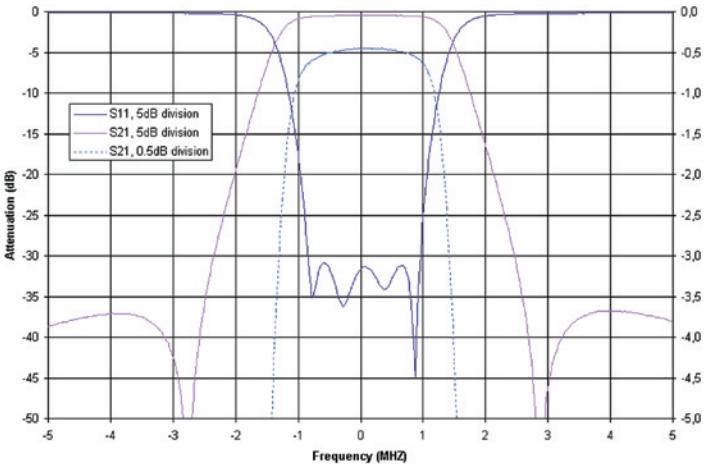
DAB Band L Bandpass filter

1 kW rms, 2 Cavities

BAND L

10 year GUARANTEE





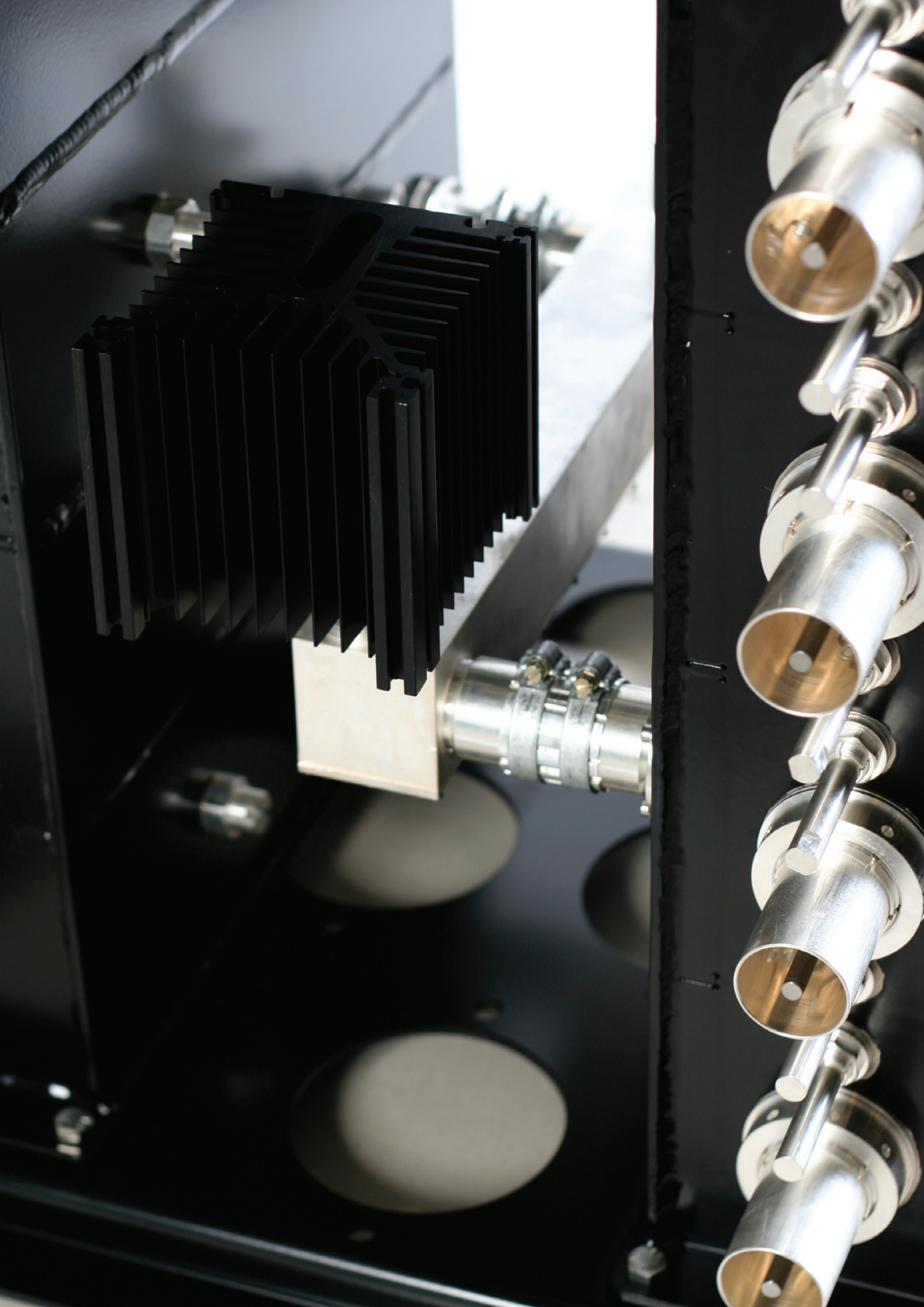
PRODUCT FEATURES

- With Cross-coupling
- Compact design
- Dual-mode
- Very stable
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

The L Band DAB filter uses dual-mode waveguide features to provide a low-loss, high-rejection filter for either the critical or non-critical Eureka 147 mask specifications. Built with a stackable frame design and containing only silver-plated components, this temperature compensated unit is available both as a separate output filter and as part of our DAB channel combiners for up to 2 kW of power.

ARTICLE	BPFL-2D18-AA00
FREQUENCY	1452 - 1492 MHz
MAXIMUM INPUT POWER	1 kW rms
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26dB)
INSERTION LOSS	
Centre frequency	0.7 dB
±0.77 MHz	0.95 dB
ATTENUATION	
±1.8 MHz	30 dB
STANDARD CONNECTION	1 5/8"
OPTIONAL CONNECTIONS	DIN 7/16 or 7/8"
DIMENSIONS	240 x 290 x 340mm
L x W x H	(9.4 x 11.4 x 13.4 in)
WEIGHT	24 kg (52.9 lb)



Combiners

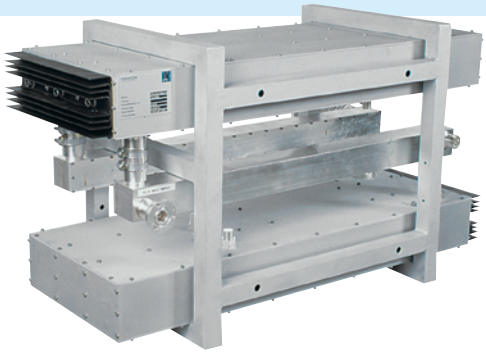
Combiners

Exir Broadcasting offers a complete range of FM, analogue and digital TV combiners to cover the international broadcasting frequency bands.

The purpose of a channel combiner is to combine different signals into one antenna. Important parameters are isolation of inputs, return loss and insertion loss.

Every combining system is different, which is why we always carry out a complete analysis before recommending a custom solution, and why our combiners have been specially developed to be flexible in any situation.
With floor space often limited, all our models are ingeniously compact in design, and can often be either floor or ceiling mounted. Our commitment to using only the highest quality components means you can rely on our combiners to deliver stable and trouble-free performance. Final measurement data is provided with each combiner.

FM Combiners



Choose from Starpoint and constant impedance combiner models. Notches are also available for critical situations with less channel spacing. A bandpass/notch filter combiner module consists of a balanced pair of bandpass/bandstop filters, two 3dB couplers and a reject load. One input is for the narrowband, the other for wideband. A starpoint combiner consists of one bandpass filter per channel with outputs that are connected to a common T-junction. All our FM combiners are able to handle the most complex combining requirements. Available with input powers up to 60 kW.

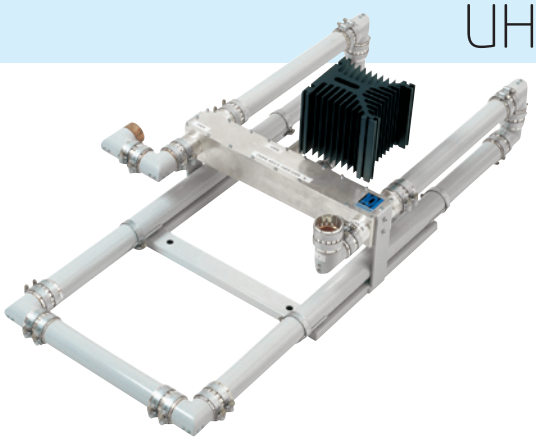
DAB/DMB Combiners

All our Digital Audio Broadcasting Combiners fully comply with the Eureka 147 Spectrum mask for both critical and non-critical specifications. A bandpass filter combiner module consists of a balanced pair of bandpass filters, two 3dB couplers and a reject load. One input is used for the narrowband channel, the other for wideband. The combiner makes it possible to combine a digital transmitter with another, or an existing BIII TV-system. Available with up to 8 cavity filters and powers up to 2kW.

VHF Combiners

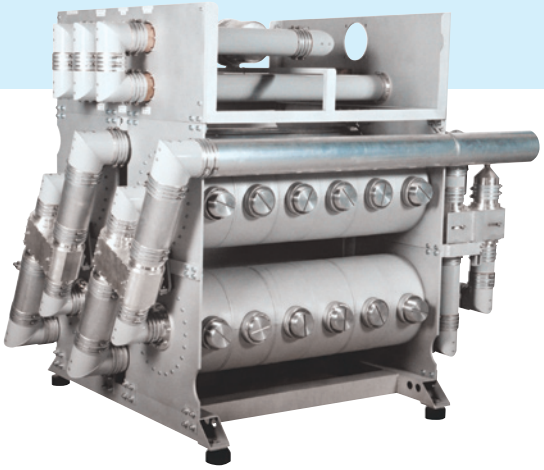
VHF combiners from Exir Broadcasting are built using our standard technology for filters and combiners and are therefore extremely reliable. Constant impedance combiners are ideal for multi-channel systems while starpoint combiners provide a more economical solution for combining two channels. Our constant impedance and starpoint models are made from aluminium and are equipped to handle as much as 14 kW of input power.

UHF Stretch line combiners



Stretch Line Combiners (or Commutating Line Combiners) consist of two 3 dB couplers and rigid lines of proper length. High isolation and extremely low losses are the key attributes of these models. No tuning is required and two transmitters can be combined into one common antenna. These economical units are ideal for non -adjacent channel combining.

UHF Analogue and Digital Combiners



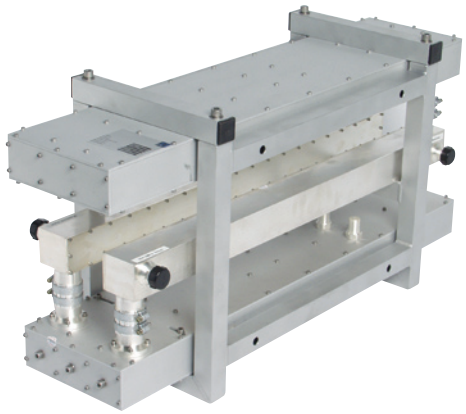
Our combiners for the UHF Band fully comply with European and International standards, with spectrum-masks for both critical and non-critical specifications. Multi-mode combiners were developed to handle adjacent channels. High isolation performance with compact design makes these models easy to position and mount. They are made from aluminium and constructed to handle power up to 30 kW RMS. All our combiners are convection-cooled, and available with 3, 4, 6, 7 and 8 cavity filters. These easy to install multi-channel systems have low loss performance, excellent rejection and temperature stability.

FM Constant Impedance Combiner

1 kW, 3 Cavities

BAND II

10 year GUARANTEE

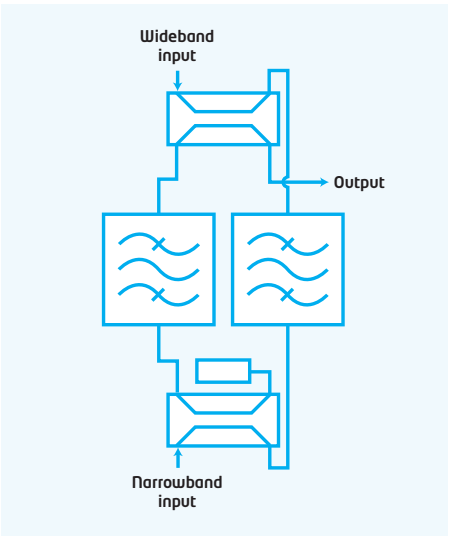


PRODUCT FEATURES

- Flexible modular design
- Easy to place – mount on ceiling or floor
- Low insertion loss
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

These balanced FM combiners employing broadband hybrids and FM tunable filters enable the combining of FM transmitters from 1 kW to 5 kW. Dry reject loads and a stackable frame design allows broadcasters to make the best use of available floor space and still produce systems of world-beating flexibility and value.



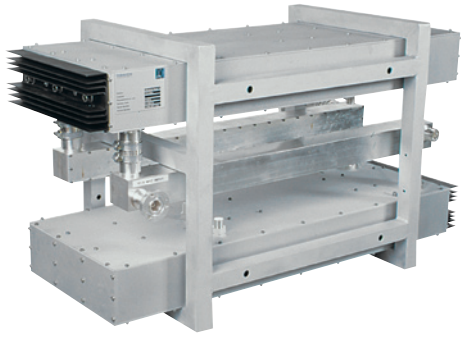
ARTICLE	COM2-3BPF-A005
FREQUENCY	87 - 108 MHz
IMPEDANCE	50 Ohm
NARROWBAND INPUT	
MAXIMUM INPUT POWER	1 kW
INPUT VSWR	<1.07 (>30 dB)
INPUT CONNECTOR	1 5/8, (EIA 7/8 flanged or DIN 7/16 on request)
INSERTION LOSS	
Centre frequency	<0.75 dB
±200 kHz	<0.85 dB
WIDEBAND INPUT	
INPUT VSWR	<1.07 (>30 dB)
INPUT CONNECTOR	1 5/8, (EIA 7/8 flanged or DIN 7/16 on request)
INSERTION LOSS	
±1.5 MHz	<0.4 dB
±3.0 MHz	<0.1 dB
ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±1.5 MHz from narrowband Cf	>40 dB
±3.0 MHz from narrowband Cf	>60 dB
MIN CHANNEL SPACING	
Lower spacing on request	2.0 MHz
MAXIMUM OUTPUT POWER	5 kW
OUTPUT CONNECTOR	1 5/8, (EIA 7/8 flanged or DIN 7/16 on request)
DIMENSIONS	1000 x 423 x 286 mm
L x W x H	(39 x 17 x 11 in)
WEIGHT	~40 kg (88 lb)

FM Constant Impedance Combiner

4 kW, 3 Cavities

BAND II

10 year GUARANTEE

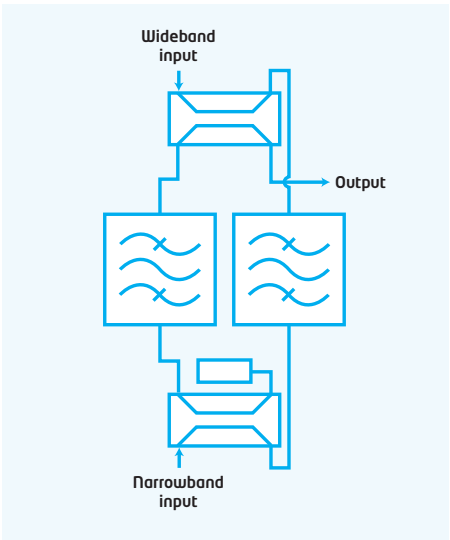


PRODUCT FEATURES

- Flexible modular design
- Easy to place – mount on ceiling or floor
- Low insertion loss
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

These balanced FM combiners employing broadband hybrids and FM tunable filters enable the combining of FM transmitters from 2,5 kW to 10 kW. Dry reject loads and a stackable frame design allows broadcasters to make the best use of available floor space and still produce systems of world-beating flexibility and value.



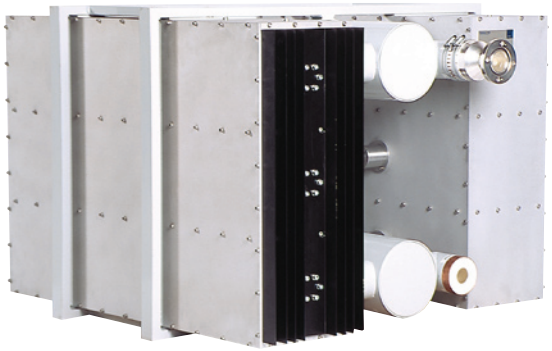
ARTICLE	COM2-3BPF-A001	COM2-3BPF-A011
FREQUENCY	87 - 108 MHz	87 - 108 MHz
IMPEDANCE	50 Ohm	50 Ohm
NARROWBAND INPUT		
MAXIMUM INPUT POWER	4 kW	2,5 kW
INPUT VSWR	<1.07 (>30 dB)	<1.07 (>30 dB)
INPUT CONNECTOR	1 5/8, (EIA 7/8 flanged on request)	1 5/8, (EIA 7/8 flanged on request)
INSERTION LOSS		
Centre frequency	<0.4 dB	<1.0 dB
±200 kHz	<0.5 dB	<1.25 dB
WIDEBAND INPUT		
INPUT VSWR	<1.07 (>30 dB)	<1.07 (>30 dB)
INPUT CONNECTOR	1 5/8, (EIA 7/8 flanged or DIN 7/16 on request)	1 5/8, (EIA 7/8 flanged or DIN 7/16 on request)
INSERTION LOSS		
±1.0 MHz	–	<0.2 dB
±1.5 MHz	<0.4 dB	<0.1 dB
±3.0 MHz	<0.1 dB	<0.1 dB
ISOLATION		
NARROWBAND - WIDEBAND	>36 dB	>36 dB
WIDEBAND - NARROWBAND		
±1.0 MHz from narrowband Cf	–	>45 dB
±1.5 MHz from narrowband Cf	>40 dB	>55 dB
±3.0 MHz from narrowband Cf	>60 dB	>65 dB
MIN CHANNEL SPACING		
Lower spacing on request	1.5 MHz	1.0 MHz
MAXIMUM OUTPUT POWER	10 kW	10 kW
OUTPUT CONNECTOR	1 5/8, (EIA 7/8 flanged or DIN 7/16 on request)	1 5/8, (EIA 7/8 flanged or DIN 7/16 on request)
DIMENSIONS	1005 x 410 x 535 mm	1005 x 410 x 535 mm
L x W x H	(40 x 16 x 21 in)	(40 x 16 x 21 in)
WEIGHT	~50 kg (110 lb)	~50 kg (110 lb)
		Temperature comp. Sharp tuned.

FM Constant Impedance Combiner

10 kW, 3 Cavities

BAND II

10 year GUARANTEE

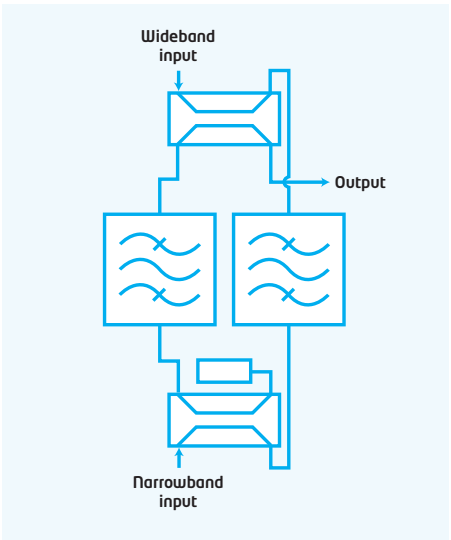


PRODUCT FEATURES

- Flexible modular design
- Low insertion loss
- Retunable

PRODUCT PROFILE

These balanced FM combiners employing broadband hybrids and FM tunable filters enable the combining of FM transmitters from 8 kW to 40 kW. Dry reject loads and a stackable frame design that allows broadcasters to make the best use of available floor space produce systems of world-beating flexibility and value.



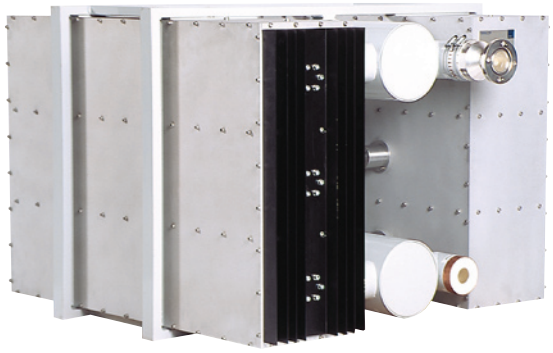
ARTICLE	COM2-3BPF-A002	COM2-3BPF-A012
FREQUENCY	87 - 108 MHz	87 - 108 MHz
IMPEDANCE	50 Ohm	50 Ohm
NARROWBAND INPUT		
MAXIMUM INPUT POWER	10 kW	8 kW
INPUT VSWR	<1.07 (>30 dB)	<1.07 (>30 dB)
INPUT CONNECTOR	EIA 3 1/8 unflanged	EIA 3 1/8 unflanged
INSERTION LOSS		
Centre frequency	<0.30 dB	<0.45 dB
±200 kHz	<0.40 dB	<0.65 dB
WIDEBAND INPUT		
INPUT VSWR	<1.07 (>30 dB)	<1.07 (>30 dB)
INPUT CONNECTOR	EIA 3 1/8 unflanged	EIA 3 1/8 unflanged
INSERTION LOSS		
±1.0 MHz	–	<0.20 dB
±1.5 MHz	<0.25 dB	<0.10 dB
±3.0 MHz	<0.10 dB	<0.10 dB
ISOLATION		
NARROWBAND - WIDEBAND	>36 dB	>36 dB
WIDEBAND - NARROWBAND		
±1.0 MHz from narrowband Cf	–	>45 dB
±1.5 MHz from narrowband Cf	>40 dB	>55 dB
±3.0 MHz from narrowband Cf	>60 dB	>65 dB
MIN CHANNEL SPACING		
Lower spacing on request	1.5 MHz	1.0 MHz
MAXIMUM OUTPUT POWER	40 kW	40 kW
OUTPUT CONNECTOR	EIA 3 1/8 unflanged	EIA 3 1/8 unflanged
DIMENSIONS	1167 x 900 x 660 mm	1167 x 900 x 660 mm
L x W x H	(46 x 35 x 26 in)	(46 x 35 x 26 in)
WEIGHT	~170 kg (375 lb)	~170 kg (375 lb)
		Temperature comp. Sharp tuned.

FM Constant Impedance Combiner

20 kW, 3 Cavities

BAND II

10 year GUARANTEE

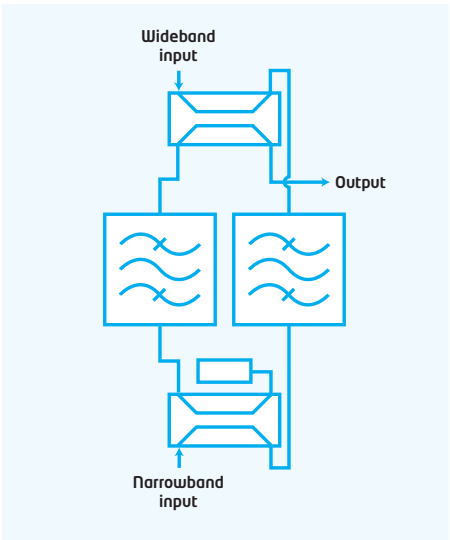


PRODUCT FEATURES

- Flexible modular design
- Low insertion loss
- Retunable

PRODUCT PROFILE

These balanced FM combiners employing broadband hybrids and FM tunable filters enable the combining of FM transmitters from 16 kW to 60 kW. Dry reject loads and a stackable frame design that allows broadcasters to make the best use of available floor space produce systems of world-beating flexibility and value.



ARTICLE	COM2-3BPF-A004	COM2-3BPF-A014
FREQUENCY	87 - 108 MHz	87 - 108 MHz
IMPEDANCE	50 Ohm	50 Ohm
NARROWBAND INPUT		
MAXIMUM INPUT POWER	20 kW	16 kW
INPUT VSWR	<1.07 (>30 dB)	<1.07 (>30 dB)
INPUT CONNECTOR	EIA 3 1/8 unflanged	EIA 3 1/8 unflanged
INSERTION LOSS		
Centre frequency	<0.20 dB	<0.30 dB
±200 kHz	<0.30 dB	<0.50 dB
WIDEBAND INPUT		
INPUT VSWR	<1.07 (>30 dB)	<1.07 (>30 dB)
INPUT CONNECTOR	EIA 3 1/8 unflanged	EIA 3 1/8 unflanged
INSERTION LOSS		
±1.0 MHz	–	<0.20 dB
±1.5 MHz	<0.25 dB	<0.10 dB
±3.0 MHz	<0.10 dB	<0.10 dB
ISOLATION		
NARROWBAND - WIDEBAND	>36 dB	>36 dB
WIDEBAND - NARROWBAND		
±1.0 MHz from narrowband Cf	–	>45 dB
±1.5 MHz from narrowband Cf	>40 dB	>55 dB
±3.0 MHz from narrowband Cf	>60 dB	>65 dB
MIN CHANNEL SPACING		
Lower spacing on request	1.5 MHz	1.0 MHz
MAXIMUM OUTPUT POWER	60 kW	60 kW
OUTPUT CONNECTOR	EIA 3 1/8 unflanged	EIA 3 1/8 unflanged
DIMENSIONS	1200 x 1006 x 1029 mm	1200 x 1006 x 1029 mm
L x W x H	(47 x 37 x 41 in)	(47 x 37 x 41 in)
WEIGHT	~300 kg (661 lb)	~300 kg (661 lb)
		Temperature comp. Sharp tuned.

FM Starpoint Combiner

5 kW, 3 Cavities

BAND II

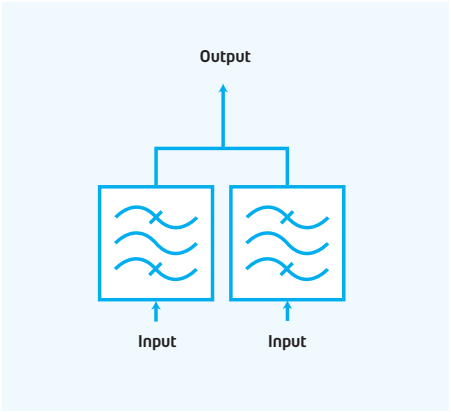
10 year GUARANTEE

PRODUCT FEATURES

- Broadbanded T-junction
- Consists of 2-3 bandpass filters
- Options are 2-cavity filters and adjustable tuning devices to ease re-tuning when required
- Other connectors available
- Retunable
- A cost-efficient solution when combining several transmitters to a single antenna
- 10-year comprehensive warranty

PRODUCT PROFILE

For cost-efficient combining or FM channels, the FM starpoint combiner is a popular choice. For either solid state of tube transmitters the common cavity design is FM band tunable, rugged and compact. With a choice of connector sizes and options at higher powers we have shown excellent performance and reliability from hundreds of units in service.



ARTICLE	COM2-3BPF-A003
FREQUENCY	87 - 108 MHz
IMPEDANCE	50 Ohm
MAXIMUM INPUT POWER / INPUT	5 kW
MAXIMUM OUTPUT POWER	10 kW
INPUT VSWR	<1.07 (>30 dB)
INSERTION LOSS	
Centre frequency	<0.25 dB
±200 kHz	<0.35 dB
ISOLATION BETWEEN INPUTS	
Input frequency spacing	
±1.8 MHz	>32 dB
±2.2MHz	>36 dB
±3.7 MHz	>45 dB
MINIMUM CHANNEL SPACING	1.8 MHz
STANDARD CONNECTIONS	EIA 3 1/8 unflanged
DIMENSIONS	781 x 745 x 1032 mm
L x W x H	(31 x 29 x 41 in)
WEIGHT	135 kg (297 lb)
OPTIONS	Starpoint combiner for more than 2 inputs

FM Starpoint Combiner

10 kW, 3 Cavities

BAND II

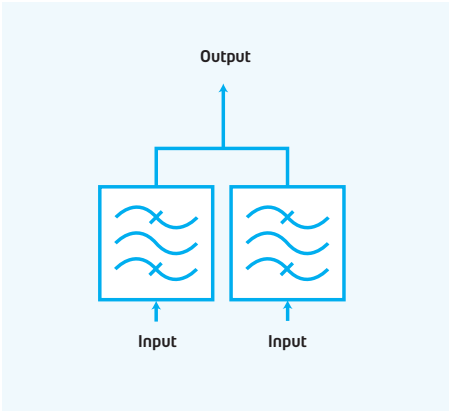
10 year GUARANTEE

PRODUCT FEATURES

- Broadbanded T-junction
- Consists of 2-5 tuned cavity bandpass filters
- Options are 2-cavity filters and adjustable tuning devices to ease re-tuning when required
- Other connectors available
- Retunable
- A cost-efficient solution when combining several transmitters to a single antenna
- 10-year comprehensive warranty

PRODUCT PROFILE

For cost-efficient combining or FM channels, the FM starpoint combiner is a popular choice. For either solid state of tube transmitters the common cavity design is FM band tunable, rugged and compact. With a choice of connector sizes and options at higher powers we have shown excellent performance and reliability from hundreds of units in service.



ARTICLE	COM2-3BPF-AG00
FREQUENCY	87 - 108 MHz
IMPEDANCE	50 Ohm
MAXIMUM INPUT POWER / INPUT	10 kW
MAXIMUM OUTPUT POWER	20 kW
INPUT VSWR	<1.07 (>30 dB)
INSERTION LOSS	
Centre frequency	<0.20 dB
±200 kHz	<0.30 dB
ISOLATION BETWEEN INPUTS	
Input frequency spacing	
±1.8 MHz	>30 dB
±2.2MHz	>36 dB
±3.7 MHz	>45 dB
MINIMUM CHANNEL SPACING	2.0 MHz
STANDARD CONNECTIONS	EIA 3 1/8 unflanged
DIMENSIONS	~1000 x 1100 x 1032 mm
L x W x H	(39 x 43 x 41 in)
WEIGHT	~185 kg (408 lb)
OPTIONS	Starpoint combiner for more than 2 Inputs

FM Constant Impedance Combiner

BAND II

10 year GUARANTEE

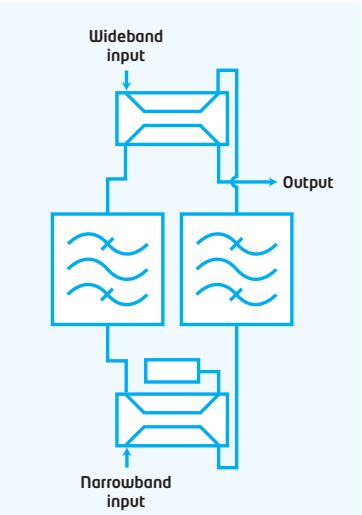
60 kW, 3 Cavities

PRODUCT FEATURES

- Flexible modular design
- Low insertion loss
- Retunable
- 800kHz channel spacing

PRODUCT PROFILE

This balanced FM combiner employing broadband hybrids and FM tunable filters enable the combining of FM transmitters up to 60 kW with an total output power of up to 150kW. If you have demands on low losses with close frequency allocation this is the right product.



ARTICLE	COM2-3BPF-AA00	COM2-3BPF-AB00	COM2-3BPF-AC00
FREQUENCY	87 - 108 MHz	87 - 108 MHz	87 - 108 MHz
IMPEDANCE	50 Ohm	50 Ohm	50 Ohm
NARROWBAND INPUT			
MAXIMUM INPUT POWER	60 kW	60 kW	50 kW
INPUT VSWR	<1.07 (>30 dB)	<1.07 (>30 dB)	<1.07 (>30 dB)
INPUT CONNECTOR	RL98	RL98	RL98
INSERTION LOSS			
Centre frequency	<0.15 dB	<0.15 dB	<0.15 dB
±200 kHz	<0.15 dB	<0.15 dB	<0.15 dB
WIDEBAND INPUT			
INPUT VSWR	<1.07 (>30 dB)	<1.07 (>30 dB)	<1.07 (>30 dB)
INPUT CONNECTOR	RL98	EIA 6 1/8" unflanged	RL98
INSERTION LOSS			
±1.5 MHz	<0.20 dB	<0.20 dB	<0.20 dB
±3.0 MHz	<0.10 dB	<0.10 dB	<0.10 dB
ISOLATION			
NARROWBAND - WIDEBAND	>36 dB	>36 dB	>36 dB
WIDEBAND - NARROWBAND			
±1.5 MHz from narrowband Cf	>50 dB	>50 dB	>50 dB
±3.0 MHz from narrowband Cf	>65 dB	>65 dB	>65 dB
MIN CHANNEL SPACING			
Lower spacing on request	1.5 MHz	1.5 MHz	1.5 MHz
MAXIMUM OUTPUT POWER	60 kW	150 kW	60 kW
OUTPUT CONNECTOR	RL98	EIA 6 1/8" unflanged	RL98
DIMENSIONS	2020 x 1100 x 1770 mm	2020 x 1100 x 1770 mm	2020 x 1100 x 1770 mm
L x W x H	(79.5 x 43.3 x 69.7 in)	(79.5 x 43.3 x 69.7 in)	(79.5 x 43.3 x 69.7 in)
WEIGHT	525 kg (1157 lb)	525 kg (1157 lb)	525 kg (1157 lb)
			Aluminum resonotor

DAB/DMB Constant Impedance Combiner

2 kW rms, 6 Cavities

BAND III

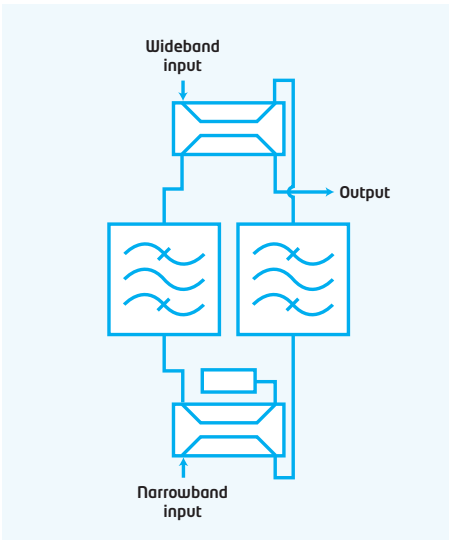
10 year GUARANTEE

PRODUCT FEATURES

- With two physical notches
- Flexible modular design
- High isolation
- Critical and non-critical mask
- Temperature compensated
- Retunable

PRODUCT PROFILE

These DAB filters and combiners now have years of proven service throughout Europe and have met all the requirements of the Eureka 147 specification and individual broadcasters requirements. Filters with up to 8 sections in constant impedance and reflective configurations have been supplied in systems requiring stable group delay and rejection characteristics. Common applications also include combining with existing TV transmitters in an existing VHF antenna.



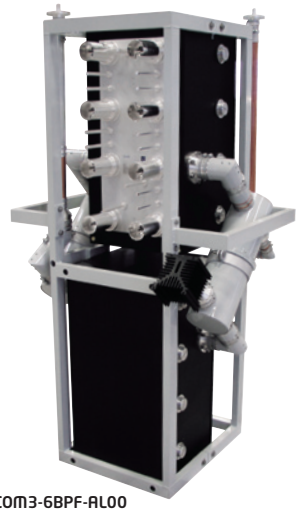
ARTICLE	COM3-6BPF-AA00
FREQUENCY	174 - 240 MHz
IMPEDANCE	50 Ohm
NARROWBAND INPUT	
MAX INPUT POWER	2 kW rms
INPUT VSWR	<1.1 (>26 dB)
INPUT CONNECTOR	EIA 1 5/8
INSERTION LOSS	
Centre frequency	<1.0 dB
±0.77 MHz	<2.0 dB
±0.97 MHz	>20 dB
±1.75 MHz	>44 dB
±3.00 MHz	>72 dB
WIDEBAND INPUT	
INPUT VSWR	<1.05 (>32 dB), 2 specified channels
INPUT CONNECTOR	EIA 1 5/8
INSERTION LOSS	
±3.00 MHz	<0.2 dB
±1.712 MHz	<0.3 dB
ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±3.00 MHz from narrowband Cf	>80 dB
±1.712 MHz from narrowband Cf	>70 dB
MINIMUM CHANNEL SPACING	Adjacent
MAXIMUM OUTPUT POWER	10 kW rms
OUTPUT CONNECTOR	EIA 1 5/8
DIMENSIONS	565 - 805 x 1215 x 630 mm
L x W x H	(22.2 - 31.7 x 47.8 x 24.8 in)
WEIGHT	~123 kg (271 lb)

DAB/DMB Constant Impedance Combiner

4 kW rms, 6 Cavities

BAND III

10 year GUARANTEE



COM3-6BPF-AL00

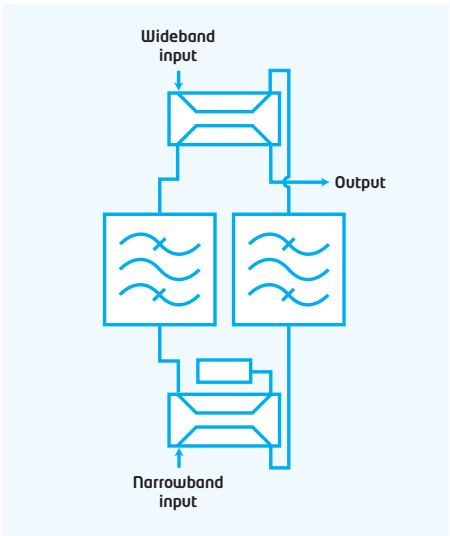
COM3-6BPF-AM00

PRODUCT FEATURES

- With two physical notches
- Flexible modular design
- Critical and non-critical mask
- Temperature compensated
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

This space-saving combiner is built with our 2 kW notch filter to provide very sharp filtering and to make room for more channels. It is available in two alternative configurations, upright and low-profile, to provide optimal fit within a station's available space.



ARTICLE	COM3-6BPF-AL00 / COM3-6BPF-AM00
FREQUENCY	174 - 240 MHz
IMPEDANCE	50 Ohm
NARROWBAND INPUT	
MAX INPUT POWER	4 kW rms
INPUT VSWR	<1.1 (>26 dB)
INPUT CONNECTOR	EIA 3 1/8
INSERTION LOSS	
Centre frequency	<1.0 dB
±0.77 MHz	<1.8 dB
±0.97 MHz	>20 dB
±1.75 MHz	>44 dB
±3.00 MHz	>70 dB
WIDEBAND INPUT	
INPUT VSWR	<1.05 (>32 dB), 2 specified channels
INPUT CONNECTOR	EIA 3 1/8
INSERTION LOSS	
±3.00 MHz	<0.1 dB
±1.712 MHz	<0.3 dB
ISOLATION	
NARROWBAND - WIDEBAND	>30 dB
WIDEBAND - NARROWBAND	
±3.00 MHz from narrowband Cf	<80 dB
±1.712 MHz from narrowband Cf	<70 dB
MINIMUM CHANNEL SPACING	Adjacent
MAXIMUM OUTPUT POWER	30 kW rms
OUTPUT CONNECTOR	EIA 3 1/8
DIMENSIONS	693 x 940 x 1733 mm / 841 x 863 x 1239 mm
L x W x H	(27.3 x 37.0 x 68.2 in) / (33.1 x 34.0 x 48.8 in)
WEIGHT	~300 kg (~661 lb)

Exir Broadcasting P +46 415 164 00 F +46 415 166 01 info@exirbroadcasting.com www.exirbroadcasting.com

VHF Starpoint Combiner

2 x 7 kW rms, 6 Cavities

BAND III

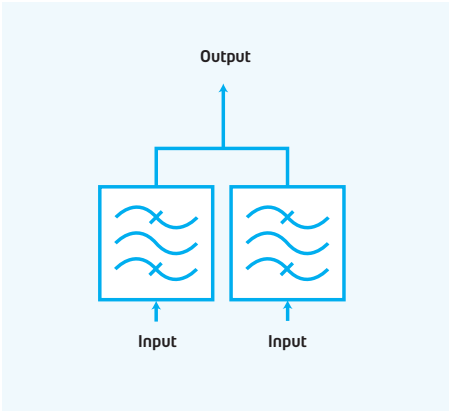
10 year GUARANTEE

PRODUCT FEATURES

- High isolation
- Low insertion loss
- Retunable
- Cost-effective solution
- 10-year comprehensive warranty
- Availble with nothces

PRODUCT PROFILE

Filters can be tuned to 6, 7 and 8 MHz bandwidth. Filters are available with notches for critical mask applications. The combiner uses temperature stabilised filters with six cavities.



ARTICLE	COM3-6BPF-AB00
FREQUENCY	174 - 240 MHz
MAXIMUM OUTPUT POWER	14 kW rms
MAXIMUM INPUT POWER	2 x 7 kW rms
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS	
Centre frequency	<0.15 dB
±3.8 MHz	<0.3 dB
±4.2 MHz	>1.7 dB
±6.0MHz	>24 dB
±12.0 MHz	>63 dB
ISOLATION	>36 dB
MINIMUM CHANNEL SPACING	1 free channel
STANDARD CONNECTION	EIA 3 1/8" unflanged
DIMENSIONS	870 x 520 x 1720 mm
L x W x H	(34.3 x 20.5 x 67.7 in)
WEIGHT	~280 kg (617 lb)

VHF Constant Impedance Combiner

8 kW rms, 6 Cavities

BAND III

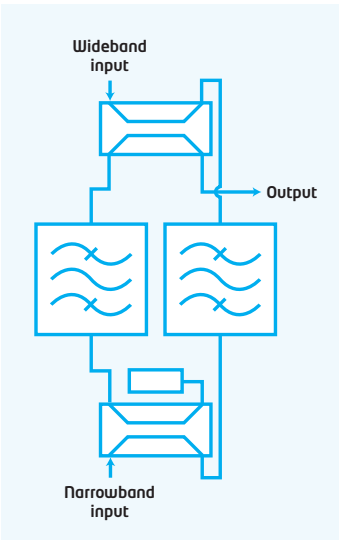
10 year GUARANTEE

PRODUCT FEATURES

- Available with cross-coupling
- Flexible modular design
- Extremely stable
- Low insertion loss
- Temperature compensated
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

This constant impedance combiner is built using Exir Broadcastings high performance, 4 kW bandpass filters, which provide exceptionally sharp filtering and contribute to the combiner's extremely stable operation. The combiner can be tuned to 6, 7 or 8 MHz bandwidth, and offers leading edge performance for multi-channel systems.



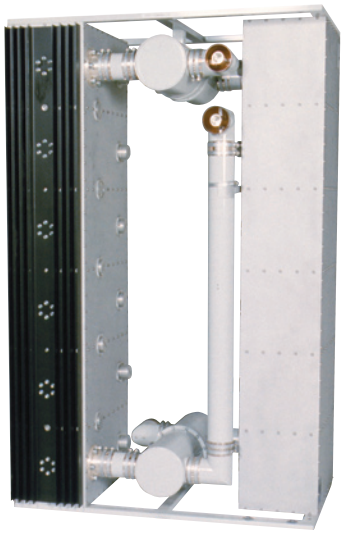
ARTICLE	COM3-6BPF-AN00	
FREQUENCY	174 - 240 MHz	
IMPEDANCE	50 Ohm	
NARROWBAND INPUT		
MAX INPUT POWER	8 kW rms	
INPUT VSWR	<1.1 (>26 dB)	
INPUT CONNECTOR	3 1/8" unflanged	
INSERTION LOSS	**No Cross-coupling**	**Single cross-coupling**
Centre frequency	<0.15 dB	<0.2 dB
±3.8 MHz	<0.35 dB	<0.9 dB
±4.2 MHz	>1.5 dB	>5.5 dB
±6.0MHz	>24 dB	>17 dB
±12.0 MHz	>63 dB	>27 dB
WIDEBAND INPUT		
INPUT VSWR	<1.05 (>32 dB), 2 specified channels	
INPUT CONNECTOR	3 1/8" unflanged	
INSERTION LOSS		
±24 MHz	0.05 dB	
±16 MHz	0.05 dB	
±8 MHz	0.11 dB	
ISOLATION		
NARROWBAND - WIDEBAND	>36 dB	
WIDEBAND - NARROWBAND		
±8 MHz from narrowband Cf	>60 dB	>50 dB
±24 MHz from narrowband Cf	>80 dB	>60 dB
MINIMUM CHANNEL SPACING	1 free channel	Adjacent
MAXIMUM OUTPUT POWER	30 kW rms	
OUTPUT CONNECTOR	3 1/8" unflanged	
DIMENSIONS	800 x 530 x 1564 mm	
L x W x H	(31.5 x 20.9 x 61.6 in)	
WEIGHT	~190 kg (~419 lb)	

VHF Constant Impedance Combiner

14 kW rms, 6 Cavities

BAND III

10 year GUARANTEE

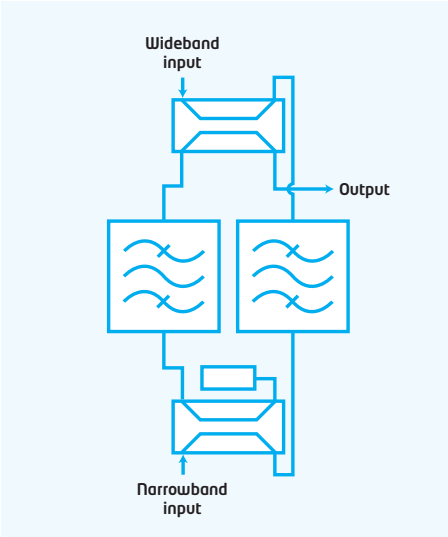


PRODUCT FEATURES

- Flexible modular design
- High isolation
- Low insertion loss
- Dry absorbers
- Retunable
- Cost-effective solution
- 10-year comprehensive warranty

PRODUCT PROFILE

This constant impedance combiner is built using Exir Broadcastings high performance, 7 kW bandpass filters, which provide exceptionally sharp filtering and contribute to the combiner's extremely stable operation. The combiner can be tuned to 6, 7 or 8 MHz bandwidth, and offers leading edge performance for multi-channel systems.



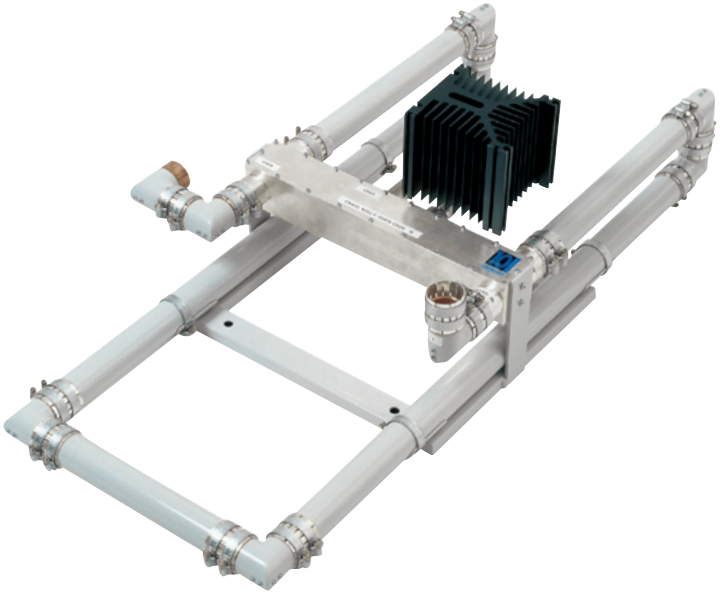
ARTICLE	COM3-6BPF-AJ00
FREQUENCY	174 - 240 MHz
IMPEDANCE	50 Ohm
NARROWBAND INPUT	
MAX INPUT POWER	14 kW rms
INPUT VSWR	<1.1 (>26 dB)
INPUT CONNECTOR	EIA 3 1/8" unflanged or flanged
INSERTION LOSS	
Centre frequency	<0.15 dB
±3.8 MHz	<0.3 dB
±4.2 MHz	>1.7 dB
±6.0MHz	>24 dB
±12.0 MHz	>63 dB
WIDEBAND INPUT	
INPUT VSWR	<1.05 (>32 dB), 2 specified channels
INPUT CONNECTOR	EIA 3 1/8" unflanged or flanged
INSERTION LOSS	
±24 MHz	0.05 dB
±16 MHz	0.05 dB
±8 MHz	0.1 dB
ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	>60 dB
±24 MHz from narrowband Cf	>80 dB
MINIMUM CHANNEL SPACING	1 free channel
MAXIMUM OUTPUT POWER	30 kW rms
OUTPUT CONNECTOR	EIA 3 1/8" unflanged or flanged
DIMENSIONS	960 x 560 x 1509 mm
L x W x H	(37.8 x 22.0 x 59.4 in)
WEIGHT	~200 kg (441 lb)

UHF Stretch Line Combiner

2 x 2.5 kW Peak Sync, Single

BAND IV-V

10 year GUARANTEE

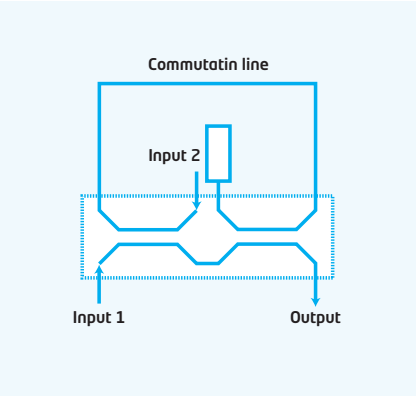


PRODUCT FEATURES

- High isolation
- Low insertion loss
- Dry absorbers
- Cost-effective solution
- 10-year comprehensive warranty

PRODUCT PROFILE

Exir Broadcasting Stretch Line combiners are very dependable and provide a cost-effective alternative for combining without the use of proper bandpass filters.



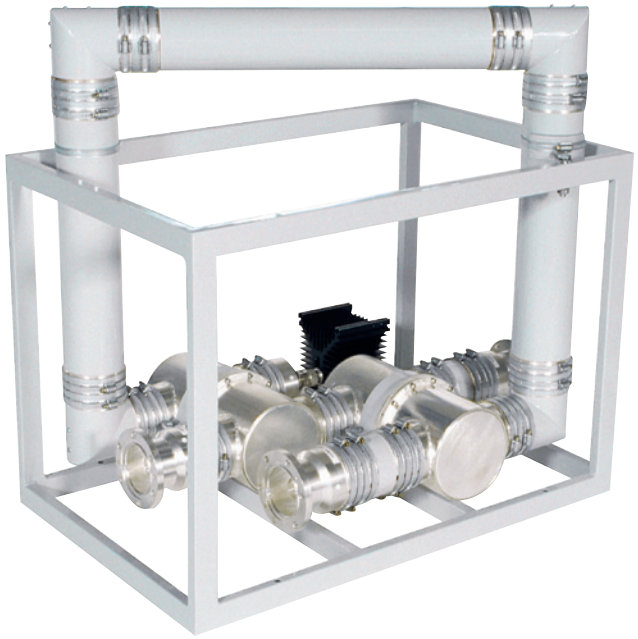
ARTICLE	COM4-0STL-A013	COM4-0STL-A016
FREQUENCY	470 - 860 MHz	470 - 860 MHz
MAXIMUM OUTPUT POWER	5 kW Peak Sync + sound 0.5 kW	5 kW Peak Sync + sound 0.5 kW
MAXIMUM INPUT POWER / CHANNEL	2.5 kW Peak sync + sound 0.25 kW	2.5 kW Peak Sync + sound 0.25 kW
IMPEDANCE	50 Ohm	50 Ohm
VSWR	<1.05 (>32 dB)	<1.05 (>32 dB)
INSERTION LOSS	>4 channels space; <0.3 dB 3 channels space; <0.5 dB	>9 channels space; <0.3 dB 9 channels space; <0.5 dB
ISOLATION	>45 dB	>45 dB
MINIMUM CHANNEL SPACING	3 channels	9 channels
STANDARD CONNECTION	EIA 1 5/8 unflanged, 7/8 F, 7/16	EIA 1 5/8 unflanged, 7/8 F, 7/16
DIMENSIONS L x W x H	max 700 x 460 x 670 mm (27.6 x 18 x 26.4 in)	max 700 x 460 x 670 mm (27.6 x 18 x 26.4 in)
WEIGHT	~40 kg (88.2 lb)	~40 kg (88.2 lb)

UHF Stretch Line Combiner

2 x 20 and 2 x 10 kW Peak Sync, Single

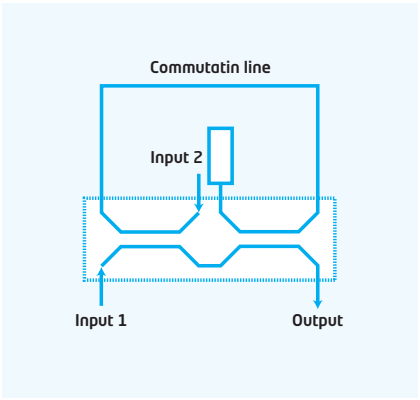
BAND IV-V

10 year GUARANTEE



PRODUCT FEATURES

- High isolation
- Very low losses
- Dry absorbers
- No forced air cooling
- Cost-effective solution
- 10-year comprehensive warranty



PRODUCT PROFILE

Exir Components Stretch Line combiners are very dependable and provide a cost-effective alternative for combining without the use of proper bandpass filters.

ARTICLE	COM4-0STL-A010	COM4-0STL-A003
FREQUENCY	470-860 MHz	470-860 MHz
MAXIMUM OUTPUT POWER	40 kW Peak Sync	20 kW Peak Sync
INPUT POWER (at 25°C)	2 x 20 kW vision + 2 x 2 kW sound and NICAM	2 x 10 kW vision + 2 x 1 kW sound and NICAM
IMPEDANCE	50 Ohm	50 Ohm
VSWR	<1.05 (>32 dB)	<1.05 (>32 dB)
INSERTION LOSS	>4 channels space; <0.3 dB 3 channels space; <0.5 dB	>4 channels space; <0.3 dB 3 channels space; <0.5 dB
ISOLATION	>36 dB	>36 dB
MINIMUM CHANNEL SPACING	3 channels	3 channels
STANDARD CONNECTION	RL98 unflanged or flanged	EIA 3 1/8 unflanged or flanged
DIMENSIONS L x W x H	860 x 550 x 800 mm (34 x 22 x 32 in) depending on channel	517 x 741 x 600 mm (20 x 29 x 24 in) depending on channel
WEIGHT	~50 kg (110 lb)	~45 kg (99 lb)

UHF Manifold Combiner

50 W rms, 3 Pol

BAND IV-V

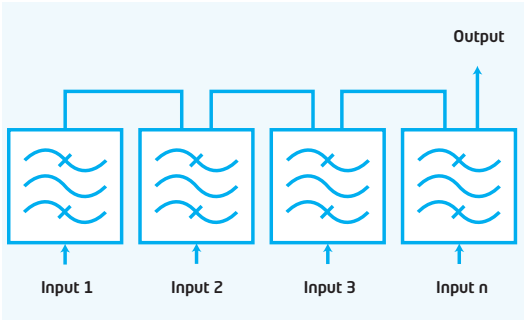
10 year GUARANTEE

PRODUCT FEATURES

- Very cost efficient
- Flexible and compact
- Small size
- UHF band tunable
- Flexible and compact
- 6, 7 and 8 MHz channel bandwidth tunable
- Possible to fit in 19"

PRODUCT PROFILE

Exir Broadcasting Manifold combiners are very dependable and provide a cost-effective alternative for combining without couplers.



ARTICLE	1105100
FREQUENCY	470 - 860 MHz
IMPEDANCE	50 Ohm

NARROWBAND INPUT	
MAX INPUT POWER	50 W rms
INPUT VSWR	<1.1 (>26 dB)
INPUT CONNECTOR	N female
INSERTION LOSS	
Centre frequency	
data for 4ch combiner	<0.55 dB
± 3.8 MHz	<0.65 dB
± 4.2 MHz	>0.75 dB
± 6.0 MHz	>1.0 dB
± 12.0 MHz	>10 dB
± 20.0 MHz	>30 dB

ISOLATION	
Ch. spacing 2 free ch.	>30 dB
>3 free ch	>36 dB

MINIMUM CHANNEL SPACING	2 free channels
MAXIMUM NO OF CHANNEL	4 (more on request)
MAXIMUM OUTPUT POWER	480 Wrms
OUTPUT CONNECTOR	N female

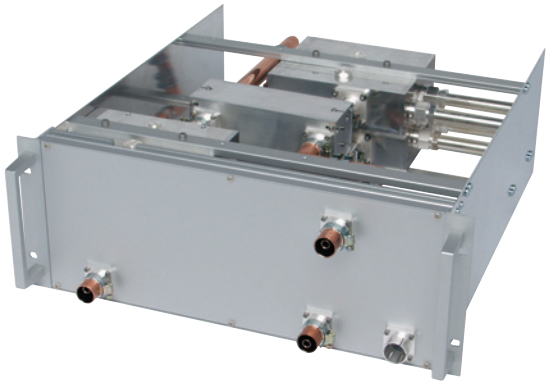
WEIGHT & DIMENSIONS				
ARTICLE	1104858	1104794	1104790	1104792
HEIGHT	1U	2U	3U	3U
DEPTH	<400 mm	<400 mm	<400 mm	<400 mm
WIDTH	19"	19"	19"	19"
MAX NUMBER OF FILTERS	2	4	5	10
WEIGHT PER FILTER	~1,3	~1,3	~1,3	~1,3

UHF Constant Impedance Combiner

400 and 500 W rms, 4 Cavities

BAND IV-V

10 year GUARANTEE

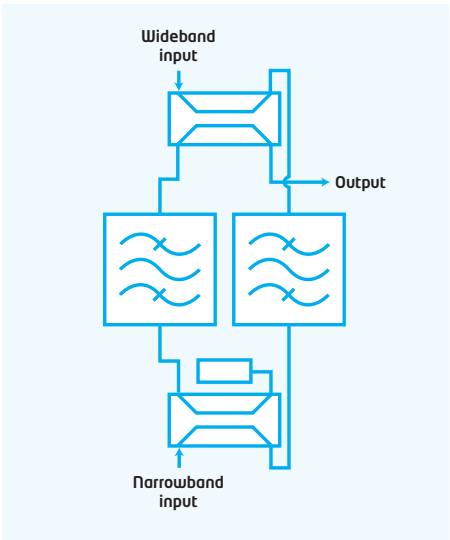


PRODUCT FEATURES

- Flexible and compact
- 19" rack-mountable
- High isolation
- Temperature compensation on request
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

This low-power combiner provides exceptional performance and system flexibility. Full UHF tuning 470-860 MHz with 6, 7 and 8 MHz bandwidth, without requiring any replacement of parts. The filter ensures excellent results in bandpass and channel combining applications. The combiner is small and built for mounting in a 19" rack. Also available with black finish for handling up to 500 W of input power.



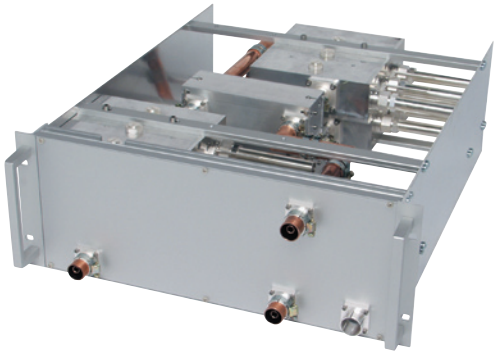
ARTICLE	COM4-4BPF-AA00 / COM4-4BPF-AB00
FREQUENCY	470 - 860 MHz
IMPEDANCE	50 Ohm
NARROWBAND INPUT	
MAX INPUT POWER	400 / 500 W rms
INPUT VSWR	<1.1 (>26 dB)
INPUT CONNECTOR	7/8" RL unflanged
INSERTION LOSS	
Centre frequency	<0.5 dB
±3.8 MHz	<0.7 dB
±4.2 MHz	>1 dB
±6.0 MHz	>7 dB
±12.0 MHz	>32 dB
WIDEBAND INPUT	
INPUT VSWR	<1.07 (>30 dB), 2 specified channels
INPUT CONNECTOR	7/8" RL unflanged
INSERTION LOSS	
±24 MHz	<0.1 dB
±16 MHz	<0.15 dB
±8 MHz	<0.35 dB
ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	>36 dB
±24 MHz from narrowband Cf	<70 dB
MINIMUM CHANNEL SPACING	1 free Channels
MAXIMUM OUTPUT POWER	1.5 kW rms
OUTPUT CONNECTOR	DIN 7/16 m/f, N m/f, 7/8" RL unflanged
DIMENSIONS	550 x 480 x 177 mm
L x W x H	(21.5 x 19 x 4.6 in)
WEIGHT	15 kg (33 lb)

UHF Constant Impedance Combiner

400 and 500 W rms, 6 Cavities

BAND IV-V

10 year GUARANTEE

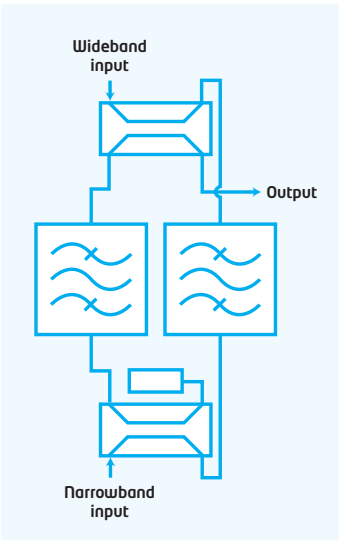


PRODUCT FEATURES

- Flexible and compact
- 19" rack-mountable
- High isolation
- Available with Cross-coupling
- Temperature compensation on request
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

This low-power combiner provides exceptional performance and system flexibility. Full UHF tuning 470-860 MHz with 6, 7 and 8 MHz bandwidth, without requiring any replacement of parts. The filter ensures excellent results in bandpass and channel combining applications. The combiner is small and built for mounting in a 19" rack. Also available with black finish for handling up to 500 W of input power.



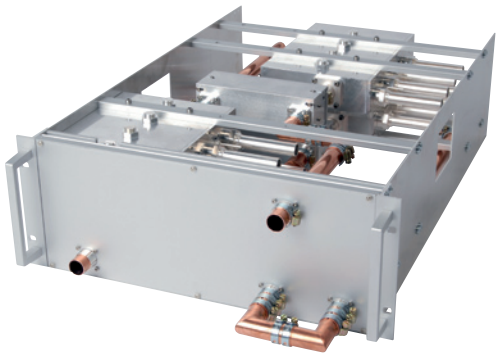
ARTICLE	COM4-6BPF-AA00 / COM4-6BPF-AB00	COM4-6BPF-AA01 / COM4-6BPF-AB01 with Cross-coupling
FREQUENCY	470 - 860 MHz	470 - 860 MHz
IMPEDANCE	50 Ohm	50 Ohm
NARROWBAND INPUT		
MAX INPUT POWER	400 / 500 W rms	400 / 500 W rms
INPUT VSWR	<1.1 (>26 dB)	<1.1 (>26 dB)
INPUT CONNECTOR	7/8" RL unflanged	7/8" RL unflanged
INSERTION LOSS		
Centre frequency	<1.0 dB	<1.2 dB
±3.8 MHz	<1.6 dB	<2.3 dB
±4.2 MHz	>3.0 dB	>6.0 dB
±6.0 MHz	>25 dB	>21 dB
±12.0 MHz	>65 dB	>30 dB
WIDEBAND INPUT		
INPUT VSWR	<1.07 (>30 dB), 2 specified channels	<1.07 (>30 dB), 2 specified channels
INPUT CONNECTOR	7/8" RL unflanged	7/8" RL unflanged
INSERTION LOSS		
±24 MHz	0,1 dB	<0.1 dB
±16 MHz	<0.15 dB	<0.15 dB
±8 MHz	<0.3 dB	<0.3 dB
ISOLATION		
NARROWBAND - WIDEBAND	>36 dB	>36 dB
WIDEBAND - NARROWBAND		
±8 MHz from narrowband Cf	>60 dB	>50 dB
±24 MHz from narrowband Cf	>70 dB	>70 dB
MINIMUM CHANNEL SPACING	Adjacent	Adjacent
MAXIMUM OUTPUT POWER	1.5 kW rms	1.5 kW rms
OUTPUT CONNECTOR	7/8" RL unflanged	7/8" RL unflanged
DIMENSIONS L x W x H	550 x 480 x 177 mm (21.5 x 19 x 4.6 in)	550 x 480 x 177 mm (21.5 x 19 x 4.6 in)
WEIGHT	17 kg (37.5 lb)	17 kg (37.5 lb)

UHF Constant Impedance Combiner

400 and 500 W rms, 8 Cavities

BAND IV-V

10 year GUARANTEE

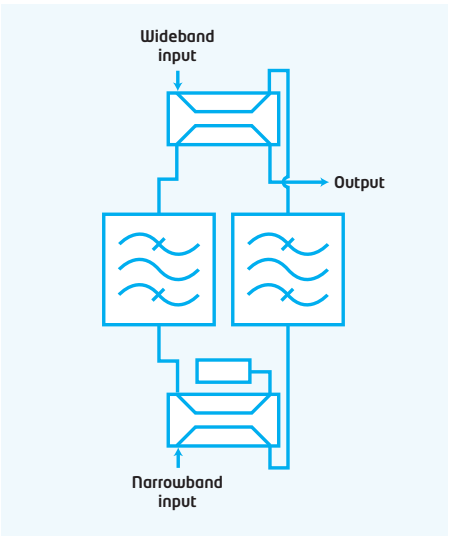


PRODUCT FEATURES

- Flexible and compact
- 19" rack-mountable
- High isolation
- Temperature compensation on request
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

This low-power combiner provides exceptional performance and system flexibility. Full UHF tuning 470-860 MHz with 6, 7 and 8 MHz bandwidth, without requiring any replacement of parts. The filter ensures excellent results in bandpass and channel combining applications. The combiner is small and built for mounting in a 19" rack. Also available with black finish for handling up to 500 W of input power.



ARTICLE	COM4-8BPF-AC00
FREQUENCY	470 - 860 MHz
IMPEDANCE	50 Ohm

NARROWBAND INPUT	
MAX INPUT POWER	400 W rms
INPUT VSWR	<1.1 (>26 dB)
INPUT CONNECTOR	7/8" RL unflanged
INSERTION LOSS	No Cross-coupling
Centre frequency	<1.5 dB
±3.8 MHz	<3.5 dB
±4.2 MHz	>9 dB
±6.0 MHz	>43 dB
±12.0 MHz	>95 dB

WIDEBAND INPUT	
INPUT VSWR	<1.07 (>30 dB), 2 specified channels
INPUT CONNECTOR	7/8" RL unflanged
INSERTION LOSS	
±24 MHz	<0.1 dB
±16 MHz	<0.1 dB
±8 MHz	<0.2 dB

ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	>60 dB
±24 MHz from narrowband Cf	>70 dB

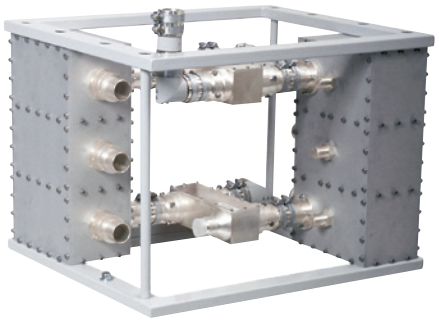
MINIMUM CHANNEL SPACING	Adjacent
MAXIMUM OUTPUT POWER	1.5 kW rms
OUTPUT CONNECTOR	7/8" RL unflanged
DIMENSIONS	680 x 480 x 177 mm
L x W x H	(26.6 x 19 x 4.6 in)
WEIGHT	20 kg (44 lb)

UHF Constant Impedance Combiner

BAND IV-V

10 year GUARANTEE

1.5 kW rms, 3 Cavities

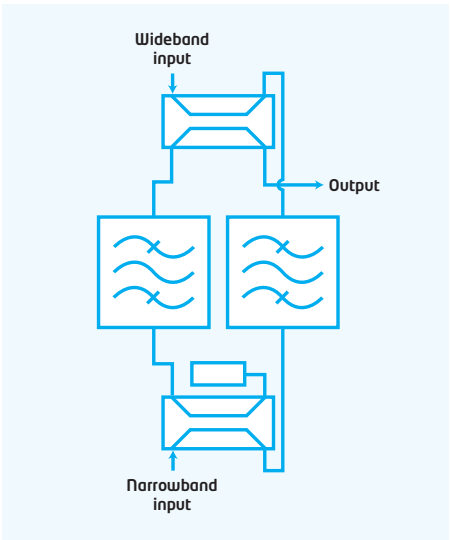


PRODUCT FEATURES

- Flexible modular design
- For both analogue and digital use
- Broadband coupling design
- Low insertion loss
- No contact springs
- High isolation
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

These small units are primarily used for combining analogue and digital channels. The use of 3 dB couplers make it a very flexible design that provides upgrading and expansion possibilities.



ARTICLE	COM4-3BPF-A001
FREQUENCY	470 - 860 MHz
IMPEDANCE	50 Ohm

NARROWBAND INPUT	
MAX INPUT POWER	1.5 kW rms
INPUT VSWR	<1.1 (>26 dB)
INPUT CONNECTOR	EIA 1 5/8 (option DIN 7/16)
INSERTION LOSS (Typical at ch. 28)	
Centre frequency	<0.2 dB
±3.8 MHz	<0.25 dB
±4.2 MHz	>0.25 dB
±6.0 MHz	>1.5 dB
±12.0 MHz	>16 dB
±20.0 MHz	>30 dB

WIDEBAND INPUT	
INPUT VSWR	<1.05 (>32 dB), 2 specified channels
INPUT CONNECTOR	EIA 1 5/8 (option DIN 7/16)
INSERTION LOSS	
±24 MHz	<0.05 dB
±16 MHz	<0.05 dB
±8 MHz	<1.5 dB

ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	>36 dB
±24 MHz from narrowband Cf	>60 dB

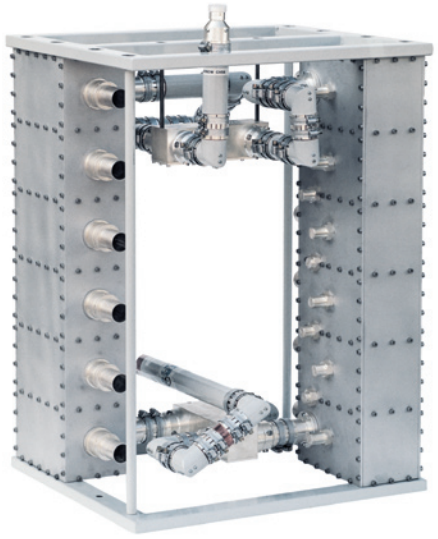
MINIMUM CHANNEL SPACING	2 free channels
MAXIMUM OUTPUT POWER	5 kW rms
OUTPUT CONNECTOR	EIA 1 5/8 (option DIN 7/16)
DIMENSIONS	475 x 554 x 380 mm
L x W x H	(18.7 x 22 x 15 in)
WEIGHT	35 kg (77.2 lb)

UHF Constant Impedance Combiner

1.5 kW rms, 6 Cavities

BAND IV-V

10 year GUARANTEE

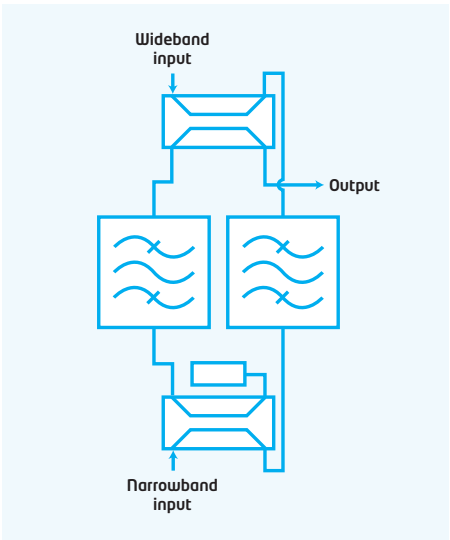


PRODUCT FEATURES

- Broadband coupling design
- Low insertion loss
- No contact springs
- High isolation
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

These popular combiners are used in several digital broadcasting stations around the world. The combiner matches perfect filtering with impressive flexibility provided by the broadband hybrids.



ARTICLE	COM4-6BPF-A001
FREQUENCY	470 - 860 MHz
IMPEDANCE	50 Ohm

NARROWBAND INPUT	
MAX INPUT POWER	1.5 kW rms
INPUT VSWR	<1.1 (26 dB)
INPUT CONNECTOR	EIA 1 5/8 (option DIN 7/16)
INSERTION LOSS	
Centre frequency	<0.6 dB
±3.8 MHz	<1.0 dB
±4.2 MHz	>2.5 dB
±6.0 MHz	>24 dB
±12.0 MHz	>60 dB

WIDEBAND INPUT	
INPUT VSWR	<1.05 (>32 dB), 2 specified channels
INPUT CONNECTOR	EIA 1 5/8 (option DIN 7/16)
INSERTION LOSS	
±24 MHz	<0.05 dB
±16 MHz	<0.05 dB
±8 MHz	<0.1 dB

ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	<70 dB
±24 MHz from narrowband Cf	<80 dB

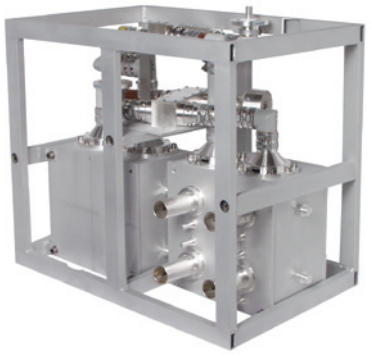
MINIMUM CHANNEL SPACING	1 free channels
MAXIMUM OUTPUT POWER	5 kW rms
OUTPUT CONNECTOR	EIA 1 5/8 (option DIN 7/16)
DIMENSIONS	475 x 554 x 756 mm
L x W x H	(18.7 x 21.8 x 29.7 in)
WEIGHT	56 kg (123.5 lb)

UHF Constant Impedance Combiner

3 kW rms, 4 Cavities

BAND IV-V

10 year GUARANTEE

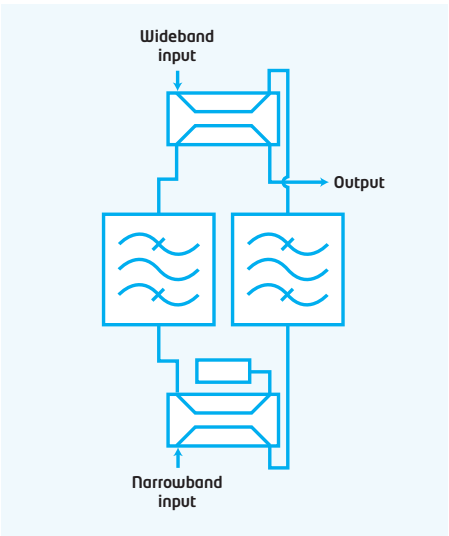


PRODUCT FEATURES

- Flexible modular design
- Extremely stable
- High isolation
- Low insertion loss
- Temperature compensated
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

The flexible 1.5 kW digital filter is now available in a 4-pole version. These combiners are among our most flexible RF systems. Multiple connector variations, UHF band tunability, temperature stability and many other quality features have made this unit popular with engineers and broadcasters.



ARTICLE	COM4-4BPF-AC00 / COM4-4BPF-AD00
FREQUENCY	470 - 860 MHz
IMPEDANCE	50 Ohm

NARROWBAND INPUT	
MAX INPUT POWER	3 kW rms
INPUT VSWR	<1.1 (>26 dB)
INPUT CONNECTOR	1 5/8" unflanged
INSERTION LOSS	
Centre frequency	<0.25 dB
±3.8 MHz	<0.3 dB
±4.2 MHz	>0.5 dB
±6.0 MHz	>6.5 dB
±12.0 MHz	>32 dB

WIDEBAND INPUT	
INPUT VSWR	<1.05 (>32 dB), 2 specified channels
INPUT CONNECTOR	1 5/8" unflanged / 3 1/8" unflanged
INSERTION LOSS	
±24 MHz	<0.05 dB
±16 MHz	<0.05 dB
±8 MHz	<0.2 dB

ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	>60 dB
±24 MHz from narrowband Cf	>80 dB

MINIMUM CHANNEL SPACING	1 free channel
MAXIMUM OUTPUT POWER	5 kW rms/12 kW rms
OUTPUT CONNECTOR	1 5/8" unflanged/3 1/8" unflanged
DIMENSIONS	676 x 445 x 610 mm
L x W x H	(26.6 x 17.5 x 24 in)
WEIGHT	~76 kg (~167.5 lb)

Exir Broadcasting P +46 415 164 00 F +46 415 166 01 info@exirbroadcasting.com www.exirbroadcasting.com

UHF Constant Impedance Combiner

3 kW rms, 6 Cavities

BAND IV-V

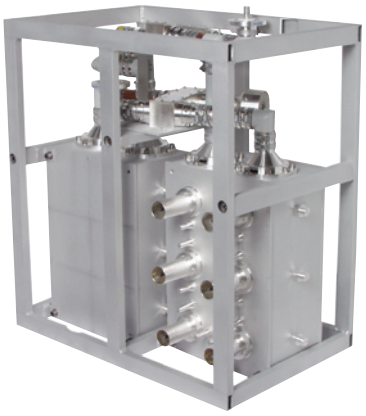
10 year GUARANTEE

PRODUCT FEATURES

- Available with cross-coupling
- Flexible modular design
- Extremely stable
- High isolation
- Low insertion loss
- Temperature compensated
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

This constant impedance combiner is exceptionally small in relation to output power, and can be conveniently mounted in a 19" rack. The combiner is built using Exir Broadcastings space-saving filters designed for greater convenience. It can be tuned to 6, 7 or 8 MHz bandwidth, and offers leading edge performance for multi-channel systems by combining the best elements from various technologies.



ARTICLE	**COM4-6BPF-AK00/COM4-6BPF-AL00**		
FREQUENCY	470 - 860 MHz		
IMPEDANCE	50 Ohm		
NARROWBAND INPUT			
MAX INPUT POWER	3 kW rms		
INPUT VSWR	<1.1 (>26 dB)		
INPUT CONNECTOR	1 5/8" unflanged		
INSERTION LOSS	**No cross-coupling**	**Single cross-coupling**	**Double cross-coupling**
Centre frequency	<0.4 dB	<0.4 dB	<0.35 dB
±3.8 MHz	<0.8 dB	<1.1 dB	<1.7 dB
±4.2 MHz	>2.0 dB	>6.0 dB	>15 dB
±6.0 MHz	>24 dB	>22 dB	>30 dB
±12.0 MHz	>64 dB	>42 dB	>32 dB
WIDEBAND INPUT			
INPUT VSWR	<1.05 (>32 dB), 2 specified channels		
INPUT CONNECTOR	1 5/8" unflanged / 3 1/8" unflanged		
INSERTION LOSS			
±24 MHz	<0.05 dB		
±16 MHz	<0.05 dB		
±8 MHz	<0.1 dB		
ISOLATION			
NARROWBAND - WIDEBAND	>36 dB		
WIDEBAND - NARROWBAND			
±8 MHz from narrowband Cf	>60 dB	>55 dB	>50 dB
±24 MHz from narrowband Cf	>80 dB	>70 dB	>60 dB
MINIMUM CHANNEL SPACING	1 free channel	Adjacent	Adjacent
MAXIMUM OUTPUT POWER	5 kW rms/12 kW rms		
OUTPUT CONNECTOR	1 5/8" unflanged/3 1/8" unflanged		
DIMENSIONS	676 x 445 x 750 mm		
L x W x H	(26.6 x 17.5 x 29.5 in)		
WEIGHT	~90 kg (~198 lb)		

UHF Constant Impedance Combiner

BAND IV-V

10 year GUARANTEE

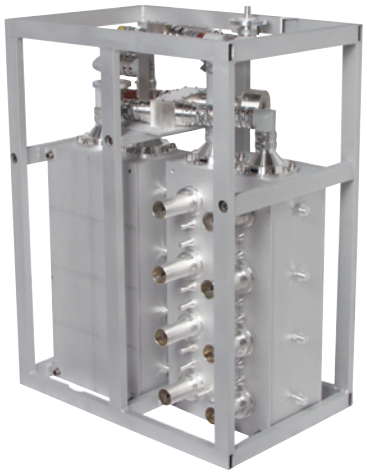
3 kW rms, 8 Cavities

PRODUCT FEATURES

- Availble with cross-coupling
- Suitable for adjacent channels
- Possible critical mask compliant (depending on tx & tuning)
- Temperature compensated
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

This constant impedance combiner is exceptionally small in relation to output power, and can be conveniently mounted in a 19" rack. The combiner is built using Exir Broadcastings space-saving filters designed for greater convenience. It can be tuned to 6, 7 or 8 MHz bandwidth, and offers leading edge performance for multi-channel systems by combining the best elements from various technologies. In addition, the eight cavities make this combiner an ideal choice for use with adjacent channels.

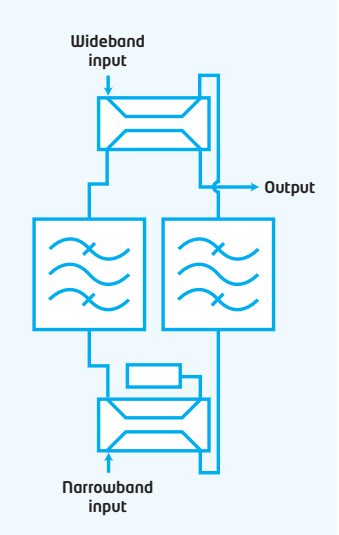


ARTICLE	COM4-8BPF-AA00 / COM4-8BPF-AB00		
FREQUENCY	470 - 860 MHz		
IMPEDANCE	50 Ohm		
NARROWBAND INPUT			
MAX INPUT POWER	3 kW rms		
INPUT VSWR	<1.1 (>26 dB)		
INPUT CONNECTOR	1 5/8" unflanged		
INSERTION LOSS	**No Cross-coupling**	**Cross-coupling single**	**Cross-coupling double**
Centre frequency	<0.6 dB	<0.55 dB	<0.55 dB
±3.8 MHz	<1.7 dB	<1.7 dB	<1.8 dB
±4.2 MHz	>7.5 dB	>14 dB	>16 dB
±6.0 MHz	>43 dB	>34 dB	>52 dB
±12.0 MHz	>95 dB	>70 dB	>60 dB

WIDEBAND INPUT	
INPUT VSWR	<1.05 (>32 dB), 2 specified channels
INPUT CONNECTOR	1 5/8" unflanged / 3 1/8" unflanged
INSERTION LOSS	
±24 MHz	<0.05 dB
±16 MHz	<0.05 dB
±8 MHz	<0.1 dB

ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	>60 dB
±24 MHz from narrowband Cf	>80 dB

MINIMUM CHANNEL SPACING	Adjacent channel
MAXIMUM OUTPUT POWER	5 kW rms / 12 kW rms
OUTPUT CONNECTOR	1 5/8" unflanged / 3 1/8" unflanged
DIMENSIONS	676 x 445 x 895 mm
L x W x H	(26.6 x 17.5 x 35.3 in)
WEIGHT	~110 kg (~242.5 lb)

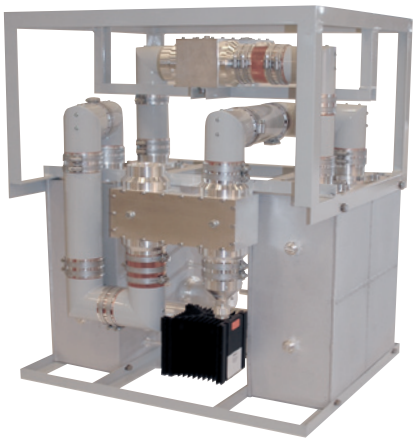


UHF Constant Impedance Combiner

5 kW rms, 4 Cavities

BAND IV-V

10 year GUARANTEE

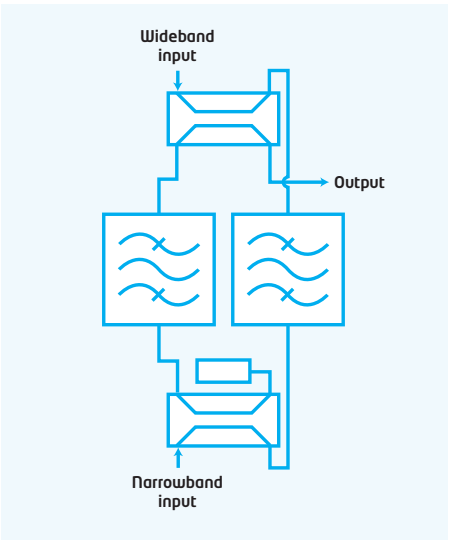


PRODUCT FEATURES

- Flexible modular design
- Extremely stable
- High isolation
- Low insertion loss
- Temperature compensated
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

The flexible 2.5 kW digital filter is now availbale in a 4-pole version. These combiners are among our most flexible RF systems. Multiple connector variations, UHF band tunability, temperature stability and many other quality features have made this unit popular with engineers and broadcasters.



ARTICLE	COM4-4BPF-AE00 / COM4-4BPF-AF00
FREQUENCY	470 - 860 MHz
IMPEDANCE	50 Ohm
NARROWBAND INPUT	
MAX INPUT POWER	5 kW rms
INPUT VSWR	<1.1 (>26 dB)
INPUT CONNECTOR	1 5/8" unflanged
INSERTION LOSS	
Centre frequency	<0.2 dB
±3.8 MHz	<0.25 dB
±4.2 MHz	>0.45 dB
±6.0 MHz	>6.5 dB
±12.0 MHz	>32 dB
WIDEBAND INPUT	
INPUT VSWR	<1.05 (32 dB), 2 specified channels
INPUT CONNECTOR	3 1/8" unflanged / RL 98, NAX 120
INSERTION LOSS	
±24 MHz	<0.05 dB
±16 MHz	<0.05 dB
±8 MHz	<0.2 dB
ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	>60 dB
±24 MHz from narrowband Cf	>80 dB
MINIMUM CHANNEL SPACING	1 free channel
MAXIMUM OUTPUT POWER	12 kW rms/30 kW rms
OUTPUT CONNECTOR	3 1/8" unflanged / RL 98, NAX 120
DIMENSIONS	716 x 595 x 797 mm
L x W x H	(28.2 x 23.4 x 31.4 in)
WEIGHT	~110 kg (~242.5 lb)

UHF Constant Impedance Combiner

BAND IV-V

10 year GUARANTEE

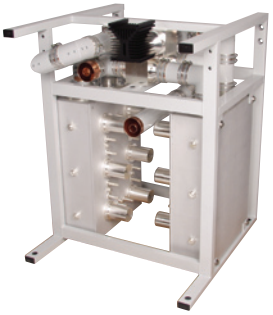
5 kW rms, 6 Cavities

PRODUCT FEATURES

- Available with cross-coupling
- Suitable for adjacent channels
- Possible critical mask compliant (depending on tx & tuning)
- Temperature compensated
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

This constant impedance combiner is built using Exir Broadcastings space-saving filters designed for greater convenience. It can be tuned to 6, 7 or 8 MHz bandwidth, and offers leading edge performance for multi-channel systems by combining the best elements from various technologies. In addition, the six cavities and cross-coupling make this combiner an ideal choice for use with adjacent channels.



ARTICLE	COM4-6BPF-AH00	COM4-6BPF-AI00	COM4-6BPF-AC00 / COM4-6BPF-AC01		
FREQUENCY	470 - 860 MHz	470 - 860 MHz	470 - 860 MHz		
IMPEDANCE	50 Ohm	50 Ohm	50 Ohm		
NARROWBAND INPUT					
MAX INPUT POWER	5 kW rms at max frequency	5 kW rms at max frequency	5 kW rms at max frequency		
INPUT VSWR	<1.1 (>26 dB)	<1.1 (>26 dB)	<1.1 (>26 dB)		
INPUT CONNECTOR	RL98 unflanged	3 1/8" unflanged	3 1/8" unflanged		
INSERTION LOSS	**No cross-coupling**	**No cross-coupling**	**No cross-coupling**	**Cross-coupling single**	**Cross-coupling double**
Centre frequency	<0.35 dB	<0.35 dB	<0.35 dB	<0.35 dB	<0.35 dB
±3.8 MHz	<0.65 dB	<0.65 dB	<0.65 dB	<1.0 dB	<1.4 dB
±4.2 MHz	>2 dB	>2 dB	>2 dB	>6 dB	>15 dB
±6.0 MHz	>24 dB	>24 dB	>24 dB	>22 dB	>30 dB
±12.0 MHz	<64 dB	<64 dB	<64 dB	<44 dB	<32 dB
WIDEBAND INPUT					
INPUT VSWR	<1.05 (>32 dB), 2 specified channels	<1.05 (>32 dB), 2 specified channels	<1.05 (>32 dB), 2 specified channels		
INPUT CONNECTOR	RL98 unflanged	3 1/8" unflanged	3 1/8" unflanged		
INSERTION LOSS					
±24 MHz	<0.05 dB	<0.05 dB	<0.05 dB		
±16 MHz	<0.05 dB	<0.05 dB	<0.05 dB		
±8 MHz	<0.1 dB	<0.1 dB	<0.1 dB		
ISOLATION					
NARROWBAND - WIDEBAND	>36 dB	>36 dB	>36 dB		
WIDEBAND - NARROWBAND					
±8 MHz from narrowband Cf	<60 dB	<60 dB	<60 dB	<55 dB	<50 dB
±24 MHz from narrowband Cf	<80 dB	<80 dB	<80 dB	<70 dB	<60 dB
MINIMUM CHANNEL SPACING	1 free channel	1 free channel	1 free channel	Adjacent	Adjacent
MAXIMUM OUTPUT POWER	30 kW rms	12 kW rms	12 kW rms / 30 kW rms		
OUTPUT CONNECTOR	RL98 unflanged	3 1/8" unflanged	3 1/8" unflanged / RL98 unflanged, NAX 120		
DIMENSIONS L x W x H	746 x 1576 x 500 mm (29 x 62 x 20 in)	810 x 760 x 980 mm (32 x 30 x 39 in)	716 x 595 x 1000 mm (28.2 x 23.4 x 39.4 in)		
WEIGHT	120 kg (265 lb)	115 kg (254 lb)	115 kg (254 lb)		

UHF Constant Impedance Combiner

5 kW rms, 8 Cavities

BAND IV-V

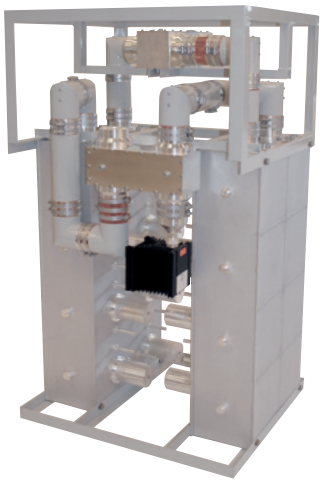
10 year GUARANTEE

PRODUCT FEATURES

- Available with cross-coupling
- Suitable for adjacent channels
- Possible critical mask compliant (depending on tx & tuning)
- Temperature compensated
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

This constant impedance combiner is built using Exir Broadcastings space-saving filters designed for greater convenience. It can be tuned to 6, 7 or 8 MHz bandwidth, and offers leading edge performance for multi-channel systems by combining the best elements from various technologies. In addition, the eight cavities and cross-coupling make this combiner an ideal choice for use with adjacent channels.

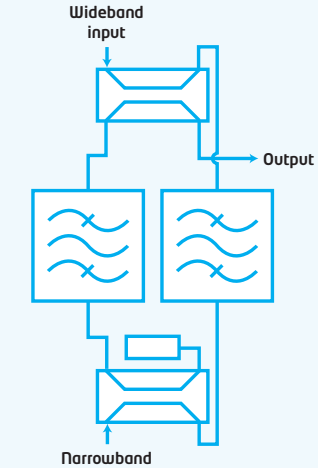


ARTICLE	COM4-8BPF-AD00 / COM4-8BPF-AE00		
FREQUENCY	470 - 860 MHz		
IMPEDANCE	50 Ohm		
NARROWBAND INPUT			
MAX INPUT POWER	5 kW rms		
INPUT VSWR	<1.1 (>26 dB)		
INPUT CONNECTOR	3 1/8" unflanged / RL98 unflanged		
INSERTION LOSS	**no Cross-coupling**	**Cross-coupling single**	**Cross-coupling double**
Centre frequency	<0.5 dB	<0.5 dB	<0.5 dB
±3.8 MHz	<1.4 dB	<1.4 dB	<1.5 dB
±4.2 MHz	>7.5 dB	>14 dB	>15 dB
±6.0 MHz	>43 dB	>33 dB	>50 dB
±12.0 MHz	<95 dB	<70 dB	<60 dB

WIDEBAND INPUT	
INPUT VSWR	<1.05 (>32 dB) 2 specified channels
INPUT CONNECTOR	3 1/8" unflanged / RL98 unflanged, NAX 120
INSERTION LOSS	
±24 MHz	<0.05 dB
±16 MHz	<0.05 dB
±8 MHz	<0.1 dB

ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	>60 dB
±24 MHz from narrowband Cf	>80 dB

MINIMUM CHANNEL SPACING	Adjacent
MAXIMUM OUTPUT POWER	12 kW rms / 30 kW rms
OUTPUT CONNECTOR	3 1/8" unflanged / RL98 unflanged, NAX 120
DIMENSIONS	716 x 595 x 1200 mm
L x W x H	(28.2 x 23.4 x 47.3 in)
WEIGHT	125 / 130 kg (275.6 / 286.6 lb)



UHF Constant Impedance Combiner

BAND IV-V

10 year GUARANTEE

Dual Digital 2x5 kW rms, 6 Cavities

PRODUCT FEATURES

- Available with cross-coupling
- Compact design
- 6 port U-link with splitter included
- Combiner and mask filtering in the same unit
- Low insertion loss
- Filter for critical mask
- Temperature compensated
- Retunable
- Adjustable bandwidth for 6, 7 or 8 MHz
- 10-year comprehensive warranty

PRODUCT PROFILE

This dual combiner is ideal for stations with two antenna halves, a method often used to allow broadcasting to continue over one antenna half while the other is being serviced. The combiner modules are among our most flexible RF systems, featuring multiple connector variations, UHF band tunability, temperature stability and more. The dual combiner comes complete with a 6-port patch panel with splitter for easy rerouting of the signal flow. In addition, it is built on a sturdy frame that enables several units to be connected together in a simple and space-saving manner.

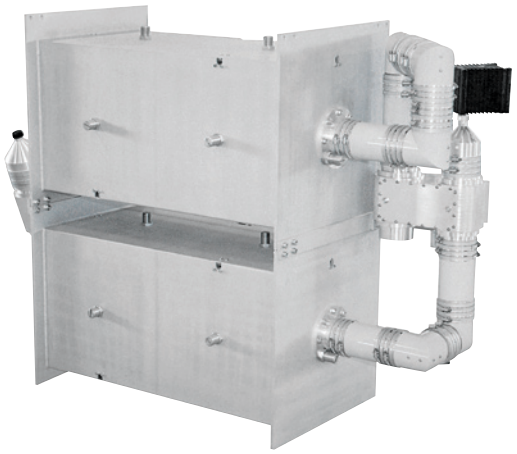
ARTICLE	**COM4-6BPF-AJ00**		
FREQUENCY	470 - 860 MHz		
IMPEDANCE	50 Ohm		
NARROWBAND INPUT			
MAXIMUM INPUT POWER / INPUT	10 kW rms		
INPUT VSWR	<1.1 (>26 dB)		
INPUT CONNECTOR	3 1/8" unflanged		
INSERTION LOSS	**No cross-coupling**	**Cross-coupling single**	**Cross-coupling double**
Centre frequency	<0.35 dB	<0.35 dB	<0.35 dB
±3.8 MHz	<0.65 dB	<1.0 dB	<1.4 dB
±4.2 MHz	>2 dB	>6 dB	>15 dB
±6.0 MHz	>24 dB	>22 dB	>30 dB
±12.0 MHz	<64 dB	<44 dB	<32 dB
WIDEBAND INPUT			
INPUT VSWR	<1.05 (>32 dB), 2 specified channels		
INPUT CONNECTOR	3 1/8" unflanged		
INSERTION LOSS			
±24 MHz	<0.05 dB		
±16 MHz	<0.05 dB		
±8 MHz	<0.1 dB		
ISOLATION			
NARROWBAND - WIDEBAND	>36 dB		
WIDEBAND - NARROWBAND			
±8 MHz from narrowband Cf	<60 dB	<55 dB	<50 dB
±24 MHz from narrowband Cf	<80 dB	<70 dB	<60 dB
MINIMUM CHANNEL SPACING	1 free channel	Adjacent	Adjacent
MAXIMUM OUTPUT POWER	2 x 12 kW rms		
OUTPUT CONNECTOR	3 1/8" unflanged		
DIMENSIONS	1620 x 1060 x 1200 mm		
L x W x H	(64 x 42 x 47 in)		
WEIGHT	~400 kg (~882 lb)		

UHF Constant Impedance Combiner

7 - 24 kW rms, 2 Cavities, Tripple-mode

BAND IV-V

10 year GUARANTEE

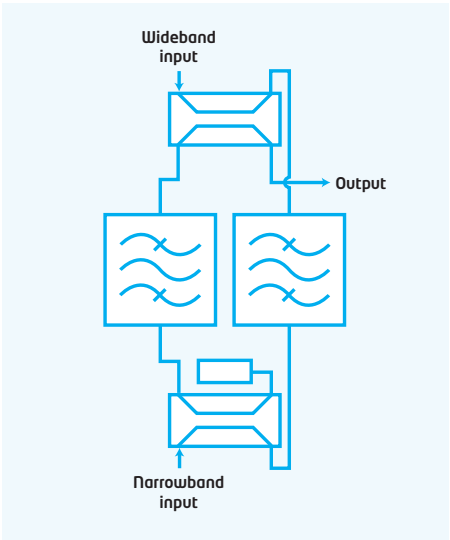


PRODUCT FEATURES

- Compact design
- Patented filters
- Design based on triple-mode waveguide technology
- Extremely sharp filter characteristics
- Suitable for adjacent channels
- Filter for critical mask
- High isolation
- Dry loads
- Very accurate temperature compensation
- With Cross-Coupling
- 10-year comprehensive warranty

PRODUCT PROFILE

This powerful combiner is ideal for digital networks, taking full advantage of the benefits offered by a small waveguide filter with very high rejection. The minimal size is attributed to triple-mode operation, which extracts 3 times the performance from each cavity. Developed for adjacent channel combining, this unit features very low insertion loss and excellent temperature and group delay stability



ARTICLE	COM4-2WGF-AA00
FREQUENCY	470 - 860 MHz
IMPEDANCE	50 Ohm

NARROWBAND INPUT	
MAXIMUM INPUT POWER	7 - 24 kW rms depending of channel
INPUT VSWR	<1.1 (>26 dB)
INPUT CONNECTOR	RL 98 (optional EIA 3 1/8)
INSERTION LOSS	
Centre frequency	<0.25 dB
±3.8 MHz	<0.8 dB
±4.2 MHz	>8.5 dB
±6.0 MHz	>25 dB
±12.0 MHz	<55 dB

WIDEBAND INPUT	
INPUT VSWR	<1.05 (>32 dB)
INPUT CONNECTOR	RL 98 (optional EIA 3 1/8)
INSERTION LOSS	
±24 MHz	<0.05 dB
±16 MHz	<0.05 dB
±8 MHz	<0.1 dB

ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	>60 dB
±24 MHz from narrowband Cf	>80 dB

MINIMUM CHANNEL SPACING	Adjacent
MAXIMUM OUTPUT POWER	36 kW rms
OUTPUT CONNECTOR	RL 98 (optional NAX 120)
DIMENSIONS	900 x 500 x 1000 mm
L x W x H	(35 x 20 x 39 in) according to channel
WEIGHT	~250 kg (551 lb) according to channel

UHF Constant Impedance Combiner

24 and 30 kW rms, 3 Cavities

BAND IV-V

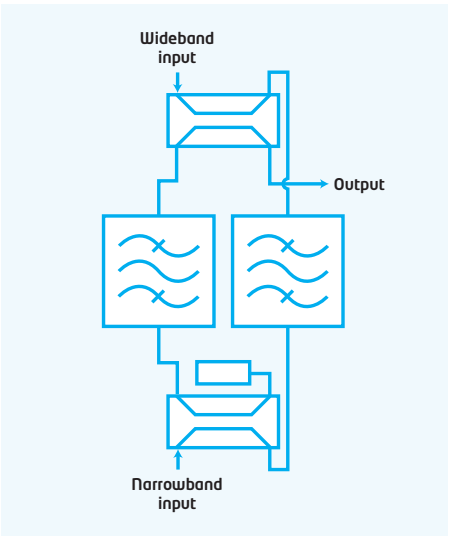
10 year GUARANTEE

PRODUCT FEATURES

- Flexible modular design
- High isolation
- Low insertion loss
- Dry loads
- Convection cooled
- Suitable for use with IOT or solid state transmitter in combined operation for vision/sound to eliminate out-of-band products
- 10-year comprehensive warranty

PRODUCT PROFILE

For channel combining applications only, this cost-effective unit will combine digital or analogue channels that are already mask compliant. The waveguide single-mode filters provide high isolation with low insertion loss in a very compact assembly. The unit is available with hybrids for higher power and NAX 120 connections.



ARTICLE	COM4-3CWG-A001 / COM4-3WGF-AC00
FREQUENCY	470 - 860 MHz
IMPEDANCE	50 Ohm

NARROWBAND INPUT	
MAXIMUM INPUT POWER	24 kW rms / 30 kW rms
INPUT VSWR	<1.1 (>26 dB)
INPUT CONNECTOR	RL 98 unflanged
INSERTION LOSS	
Centre frequency	<0.1 dB
±3.8 MHz	<0.1 dB
±4.2 MHz	<0.1 dB
±6.0 MHz	>1.0 dB
±12.0 MHz	>14 dB

WIDEBAND INPUT	
INPUT VSWR	<1.05 (>32 dB), 2 specified channels
INPUT CONNECTOR	RL 98 unflanged
INSERTION LOSS	
±24 MHz	<0.05 dB
±16 MHz	<0.05 dB
±8 MHz	<1.4 dB

ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	>36 dB
±24 MHz from narrowband Cf	>70 dB

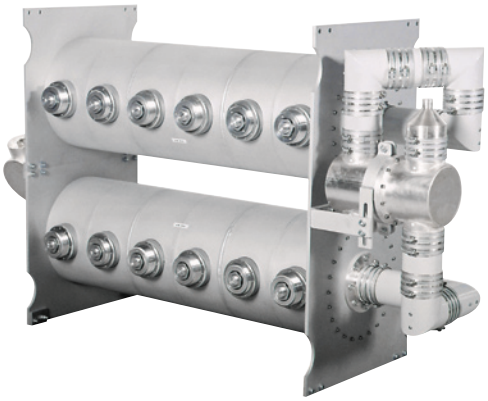
MINIMUM CHANNEL SPACING	2 free channels
MAXIMUM OUTPUT POWER	36 kW rms
OUTPUT CONNECTOR	RL 98 (optional NAX 120)
DIMENSIONS	980 x 667 x 1000 mm
L x W x H	(38.6 x 26.2 x 39.4 in) acc. to ch.
WEIGHT	~150 kg (330 lb) according to channel

UHF Constant Impedance Combiner

24 - 30 kW rms, 6 Cavities

BAND IV-V

10 year GUARANTEE

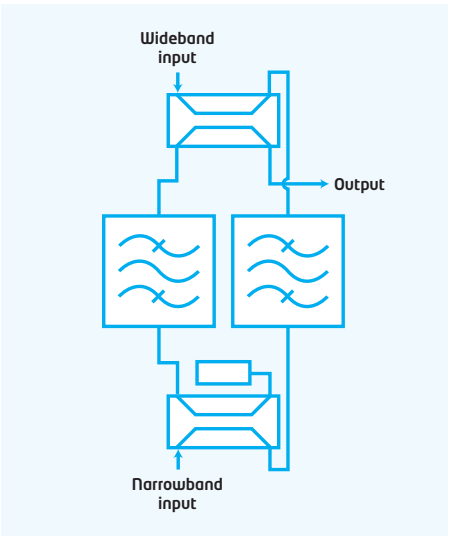


PRODUCT FEATURES

- Flexible modular design
- High isolation
- Low insertion loss
- Dry loads
- Convection cooled
- Available with temperature compensation
- 10-year comprehensive warranty

PRODUCT PROFILE

Waveguide single mode filters employ all the advantages of low losses and high rejection characteristics to provide adjacent channel combining and mask filtering in the same assembly. Suitable for input digital powers up to 30 kW and Peak Sync analogue powers up to 40 kW these versatile units have become the one of our most popular filter/combiner combinations.



ARTICLE STANDARD	COM4-6CWG-A001
WITH TEMPERATURE COMPENSATION	COM4-6WGF-AI00 / COM4-6WGF-AJ00
FREQUENCY	470 - 860 MHz
IMPEDANCE	50 Ohm

NARROWBAND INPUT	
MAX INPUT POWER	24 kW rms / 30 kW rms
INPUT VSWR	<1.1 (>26 dB)
INPUT CONNECTOR	RL 98 unflanged
INSERTION LOSS	
Centre frequency	<0.2 dB
±3.8 MHz	<0.4 dB
±4.2 MHz	>1.8 dB
±6.0 MHz	>24 dB
±12.0 MHz	>64 dB

WIDEBAND INPUT	
INPUT VSWR	<1.05 (>32 dB) 2 specified channels
INPUT CONNECTOR	RL 98 unflanged
INSERTION LOSS	
±24 MHz	0.05 dB
±16 MHz	0.05 dB
±8 MHz	0.1 dB

ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	<60 dB
±24 MHz from narrowband Cf	<80 dB

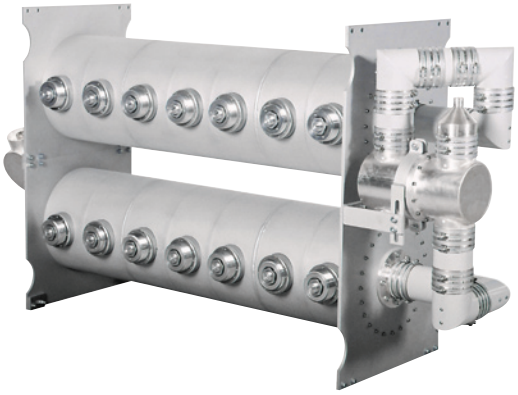
MINIMUM CHANNEL SPACING	1 free channel
MAXIMUM OUTPUT POWER	36 kW rms
OUTPUT CONNECTOR	RL 98 (optional NAX 120)
DIMENSIONS	1649 x 667 x 1000 mm
L x W x H	(65 x 26.2 x 39.4 in) acc. to channel
WEIGHT	200±25 kg (440±55 lb)

UHF Constant Impedance Combiner

BAND IV-V

10 year GUARANTEE

24 - 30 kW rms, 7 Cavities

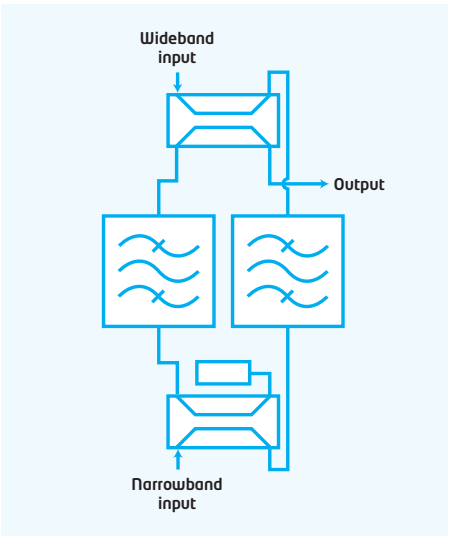


PRODUCT FEATURES

- Flexible modular design
- 7 cavities for sharp filtering
- High isolation
- Low insertion loss
- Dry loads
- Convection cooled
- Temperature compensated
- 10-year comprehensive warranty

PRODUCT PROFILE

These 7 cavity, single-mode, waveguide combiners employ the low-loss, high-power characteristics of waveguide technology with coaxial input and output. Ideal for analogue and digital transmitters, they provide high rejection and isolation in a sturdy, self-supporting, compact assembly. Available for 24 kW maximum input power as well as with black finish and cooling fins for handling up to 30 kW rms.



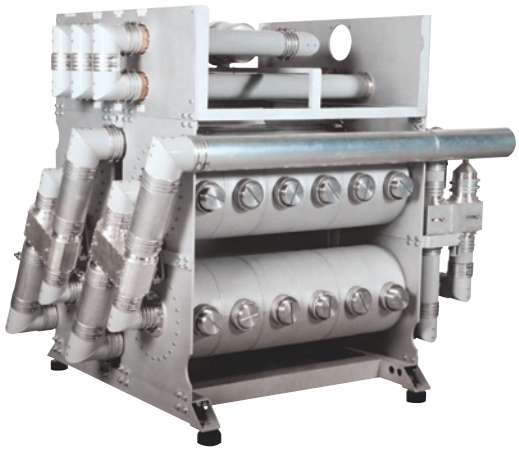
ARTICLE	COM4-7WGF-AA00 / COM4-7WGF-AB00
FREQUENCY	470 - 860 MHz
IMPEDANCE	50 Ohm
NARROWBAND INPUT	
MAX INPUT POWER	24 kW rms / 30 kW rms
INPUT VSWR	<1.1 (<26 dB)
INPUT CONNECTOR	RL 98 unflanged
INSERTION LOSS	
Centre frequency	<0.2 dB
±3.8 MHz	<0.6 dB
±4.2 MHz	>3.8 dB
±6.0 MHz	>33 dB
±12.0 MHz	>80 dB
WIDEBAND INPUT	
INPUT VSWR	<1.05 (<32 dB) 2 specified channels
INPUT CONNECTOR	RL 98 unflanged
INSERTION LOSS	
±24 MHz	0.05 dB
±16 MHz	0.05 dB
±8 MHz	0.1 dB
ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	>60 dB
±24 MHz from narrowband Cf	>80 dB
MINIMUM CHANNEL SPACING	Adjacent
MAXIMUM OUTPUT POWER	36 kW rms
OUTPUT CONNECTOR	RL 98 (optional NAX 120)
DIMENSIONS	1995 x 667 x 1000 mm
L x W x H	(78.5 x 26.2 x 39.4 in) acc. to channel
WEIGHT	225±25 kg (496±55 lb)

UHF Constant Impedance Combiner

BAND IV-V

10 year GUARANTEE

Dual Digital/Analogue, 2 x 30 kW rms, 6 Cavities

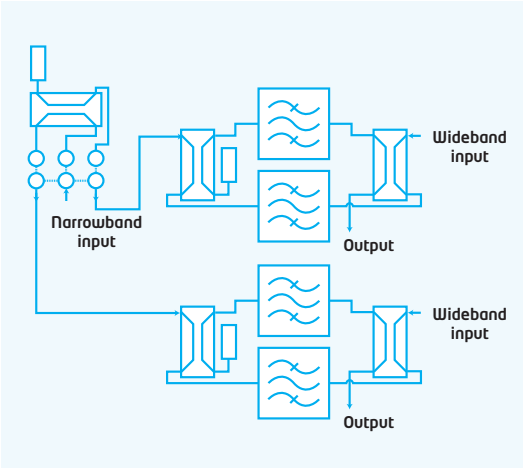


PRODUCT FEATURES

- Extremely stable
- 6 port U-link with splitter included
- Combiner and mask filtering in the same unit
- High isolation
- Low insertion loss
- Dry loads
- Convection cooling
- Available with temperature compensation
- 10-year comprehensive warranty

PRODUCT PROFILE

Waveguide single mode filters employ all the advantages of low losses and high rejection characteristics to provide non-adjacent channel combining and mask filtering in the same assembly. Suitable for input digital powers up to 30 kW. These versatile units have become the one of our most popular filter/combiner combinations.



ARTICLE	COM4-6CWG-A002
FREQUENCY	470 - 860 MHz
IMPEDANCE	50 Ohm

NARROWBAND INPUT	
MAX INPUT POWER	30 kW rms
INPUT VSWR	<1.1 (>26 dB)
INPUT CONNECTOR	RL 98 unflanged
INSERTION LOSS	
Centre frequency	<0.2 dB
±3.8 MHz	<0.4 dB
±4.2 MHz	>1.8 dB
±6.0 MHz	>24 dB
±12.0 MHz	>64 dB

WIDEBAND INPUT	
INPUT VSWR	<1.05 (>32 dB), 2 specified channels
INPUT CONNECTOR	RL 98 unflanged
INSERTION LOSS	
±24 MHz	0.05 dB
±16 MHz	0.05 dB
±8 MHz	0.1 dB

ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	<60 dB
±24 MHz from narrowband Cf	<80 dB

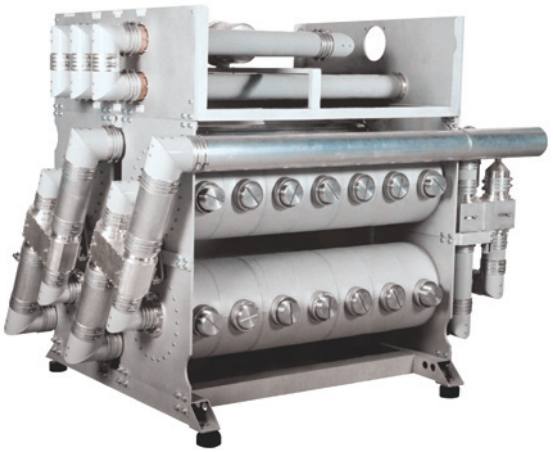
MINIMUM CHANNEL SPACING	1 free channel
MAXIMUM OUTPUT POWER	2 x 36 kW rms
OUTPUT CONNECTOR	RL 98 (optional NAX 120)
DIMENSIONS	1688 x 1240 x 1510 mm acc. to channel
L x W x H	(66.5 x 48.8 x 59.5 in) acc. to channel
WEIGHT	~525kg (1157 lb)

UHF Constant Impedance Combiner

BAND IV-V

10 year GUARANTEE

Dual Digital/Analogue, 2 x 30 kW rms, 7 Cavities

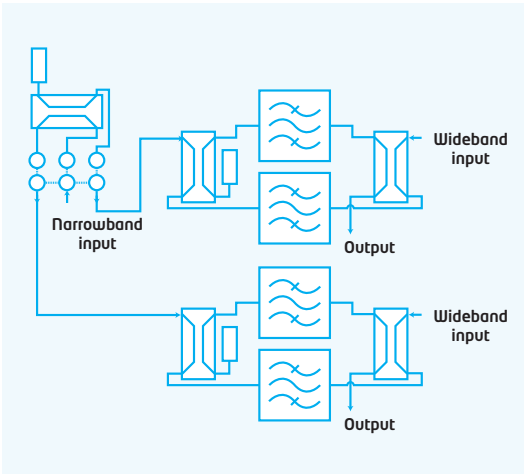


PRODUCT FEATURES

- 6 port U-link with splitter included
- Combiner and mask filtering in the same unit
- High isolation
- Low insertion loss
- Dry loads
- Convection cooling
- Temperature compensation
- 10-year comprehensive warranty

PRODUCT PROFILE

Waveguide single mode filters employ all the advantages of low losses and high rejection characteristics to provide adjacent channel combining and mask filtering in the same assembly. Suitable for input digital powers up to 30 kW. These versatile units have become the one of our most popular filter/combiner combinations.



ARTICLE	COM4-7WGF-AC00
FREQUENCY	470 - 860 MHz
IMPEDANCE	50 Ohm

NARROWBAND INPUT	
MAX INPUT POWER	30 kW data rms at max frequency
INPUT VSWR	<1.1 (<26 dB)
INPUT CONNECTOR	RL 98 unflanged
INSERTION LOSS	
Centre frequency	<0.2 dB
±3.8 MHz	<0.6 dB
±4.2 MHz	>3.8 dB
±6.0 MHz	>33 dB
±12.0 MHz	>80 dB

WIDEBAND INPUT	
INPUT VSWR	<1.05 (<32 dB), 2 specified channels
INPUT CONNECTOR	RL 98 unflanged
INSERTION LOSS	
±24 MHz	0.05 dB
±16 MHz	0.05 dB
±8 MHz	0.1 dB

ISOLATION	
NARROWBAND - WIDEBAND	>36 dB
WIDEBAND - NARROWBAND	
±8 MHz from narrowband Cf	>60 dB
±24 MHz from narrowband Cf	>80 dB

MINIMUM CHANNEL SPACING	Adjacent
MAXIMUM OUTPUT POWER	2 x 36 kW rms
OUTPUT CONNECTOR	RL 98 (optional NAX 120)
DIMENSIONS	1875 x 1240 x 1590 mm
L x W x H	(75.8 x 50.1 x 64.3 in) acc. to channel
WEIGHT	575±25 kg (1268±55 lb)

UHF Combiner - Diplexer

Vision 5 kW / Sound 0.5 kW and Vision 40 kW / Sound 2 kW

BAND IV-V

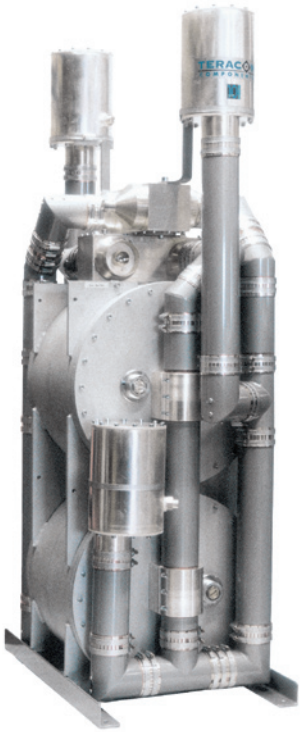
10 year GUARANTEE

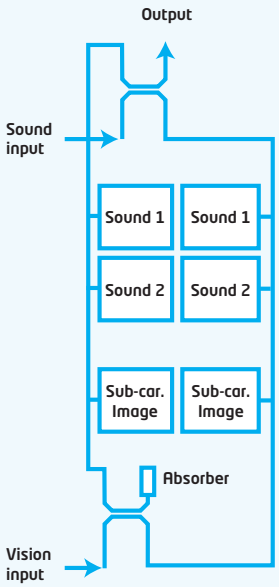
PRODUCT FEATURES

- Small dimensions, fits in a 19" rack
- Extremely good data
- 4,43 MHz notches included
- 40 kW notches included
- Temperature compensation
- Excluding power loads
- 10-year comprehensive warranty

PRODUCT PROFILE

Ranging in power from 5 kW to 40 kW, UHF for either mono or dual sound applications. This range of products offers compact size and excellent performance for TV systems worldwide. These well-proven, cost-effective designs utilise temperature-compensated cavities for improved stability and performance.





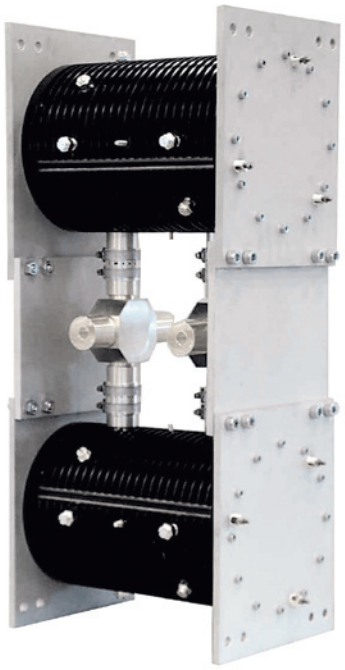
ARTICLE	COM4-1CWG-A001	COM4-1CWG-A002
FREQUENCY	470 - 860 MHz	470 - 860 MHz
MAXIMUM POWER		
Vision	40 kW Peak Sync	5 kW Peak Sync
Sound	2 kW + NICAM	0.5 kW + NICAM
SYSTEM	G (H, I, K, L, M or N option)	G (H, I, K, L, M or N option)
IMPEDANCE	50 Ohm	50 Ohm
VSWR		
Vision	<1.05 (>32 dB)	<1.05 (>32 dB)
Sound	<1.07 (>30 dB)	<1.07 (>30 dB)
INSERTION LOSS, VISION		
Vision carrier	<0.15 dB	<0.15 dB
Vision carrier +5 MHz	<1.5 dB	<1.5 dB
Vision carrier -4.43 MHz	>23 dB	>23 dB
INSERTION LOSS, SOUND		
Sound 1	<0.5 dB	<0.5 dB
Sound 2	<0.5 dB	<0.5 dB
ISOLATION		
Vision > sound	>40 dB	>40 dB
Sound > vision	>40 dB	>40 dB
STANDARD CONNECTION	EIA 3 1/8 tube	EIA 1 5/8 tube
DIMENSIONS	450 x 640 x 1125 mm	450 x 640 x 1125 mm
L x W x H	(17.7 x 25.2 x 44.3 in)	(17.7 x 25.2 x 44.3 in)
OPTIONS	Notch at +8.86 MHz absorbing type Connections: RL 98 unflanged or flanged	Notch at +8.86 MHz absorbing type Connections: RL 98 or EIA 3 1/8 unflanged or flanged

DAB L-Band Constant Impedance Combiner

2 kW rms, 2 Cavities, Dual-mode

BAND L

10 year GUARANTEE

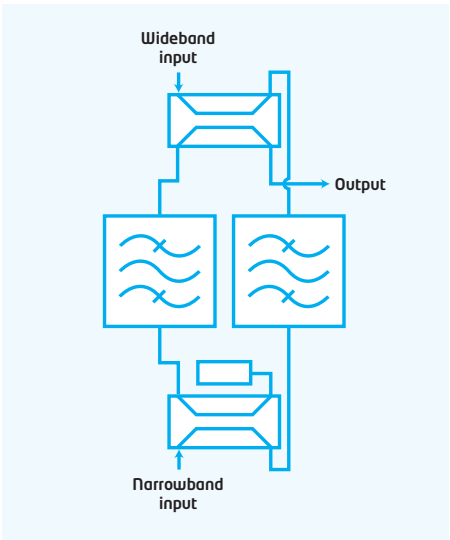


PRODUCT FEATURES

- Cross-coupling
- Compact design
- Dual-mode reduces weight and volume
- Very stable
- Retunable
- 10-year comprehensive warranty

PRODUCT PROFILE

L Band DAB combiners are a compact development of our Dual Mode waveguide filter technology to bring low loss and high isolation functions to DAB combining situations. The combiners are temperature compensated and convection cooled handling average powers up to 2 kW. DAB broadband hybrids and air-cooled loads complete this cost-effective design.



ARTICLE	COML-2BPF-A001
FREQUENCY	1452 - 1492 MHz
MAXIMUM POWER	2 kW rms
IMPEDANCE	50 Ohm
VSWR	<1.1 (>26 dB)
INSERTION LOSS	
Centre frequency	<0.6 dB
±0.77 MHz	<0.7 dB
ISOLATION	>60 dB with broadband input filter
TEMPERATURE DRAFT	<3 kHz/K, from 0 to +70 °C
STANDARD CONNECTION	1 5/8"
OPTIONAL CONNECTIONS	DIN 7/16, 7/8", 3 1/8"
DIMENSIONS	326 x 240 x 730 mm
L x W x H	(12.8 x 9.5 x 28.7 in)
WEIGHT	50 kg (110 lb)

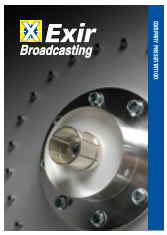
Order and Sales Information

Ordering products from Exir Broadcasting is easy. Orders can be placed directly via telephone, fax or e-mail to our Head Office, or through our sales representatives located around the globe.

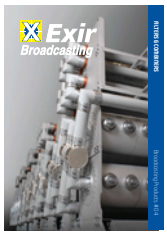
Direct Order

PHONE	+46 415 164 00
FAX	+46 415 166 01
E-MAIL	info@exirbroadcasting.com

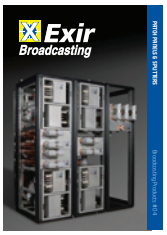
Other available publications



Broadcasting Company information



Filters & Combiners



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At www.exirbroadcasting.com you can submit technical questions via our e-mail service as well as subscribe to our free quarterly customer magazine Frequencies, which keeps you up-to-date with the latest developments at Exir Broadcasting around the world.

Reliability and High-Performance

Exir Broadcasting & Telecom AB
Sallerup 2120, SE-242 91 Hörby, Sweden
PHONE: +46 415 164 00
FAX: +46 415 164 01
E-MAIL: info@exirbroadcasting.com
HOMEPAGE: www.exirbroadcasting.com

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