



RF COMPONENTS / SYSTEMS
PRODUCT CATALOG 2022

(Front Cover Photo) Unitized Constant Impedance
Combiner & Patch Panel

Four channel UHF Adjacent Channel Constant
Impedance Combiner/Mask Filter System
Installed at 10,200ft AMSL





JAMPRO ANTENNAS, INC.— Your Partner for DTV-DVB-T & HD Radio Solutions- the oldest, most experienced broadcast antenna company in North America with over 50 years of experience providing “Complete Turnkey Broadcast Systems.”

ABOUT JAMPRO

Jampro Antennas Inc., established in 1954 to answer the need for high quality broadcast systems with a cost effective solution. Jampro is a leading supplier of antennas, combiners & filters, towers and RF components for every application in the broadcast industry. Reputed for innovation and customization, Jampro builds each system to the specifications of each individual broadcaster. From the first system delivered to those installed today, Jampro is committed to consistent performance and quality founded on solid engineering. Today over 25,000 broadcasters worldwide benefit from the quality and performance provided by Jampro systems.

CONTINUING THE TRADITION

- Engineering and manufacturing broadband multi channel systems for UHF/VHF/FM since 1967 and delivered more than 200 systems in the last 5 years.
- Delivered and installed the highest power broadband UHF systems including antennas, combiners, transmission line, and towers in Asia. One system rated for 320kW and three others operate at 240kW, 260kW, and 280kW.
- Major supplier for common transmission infrastructure projects in India. Supplying more than 75% of equipment for phase 1 and the largest number of sites for phase 2.
- True pioneer in the development and introduction of “Circular Polarization to TV.” Delivering 1st circularly polarized TV Antenna in the world and 1st 5MW circularly polarized UHF system.
- Fully staffed with experienced engineers worldwide to perform field and installation services.
- Jampro Antennas (Canada), Inc. established to better serve the Canadian and International market.
- Jampro acquires iconic European antenna supplier, ADBL (Alan Dick Broadcast Ltd), to cover the needs of broadcasters worldwide. More information about ADBL can be found on their website at www.AlanDickBroadcast.com.
- Regional offices located in Latin America, Asia, USA (California, Mid-West & Texas), Canada, and the United Kingdom.

For more information visit www.JAMPRO.com

UHF BANDS IV & V

Filters/Combiners

- RCEC-DT6-UM
- RCEC-DF6-UM
- RCEC-208-UMFH
- RCEC-386-UM
- RCBC-385-UFHT
- RCCC-X0X-1UT
- RCCC-X0X-AUH
- RCCC-203-1U DVB-T
- RWCE
- RWBW
- RWBE
- RCCS
- RCCS-202-3UH
- RWCS

UHF BANDS IV & V

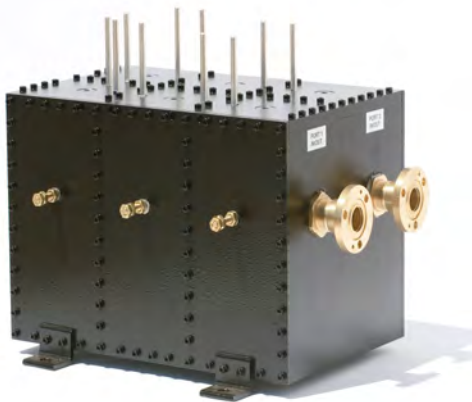
Filters/Combiners



RCEC-DT6-UM

UHF non-critical mask filter ATSC/DVB-T/ISDB-T (2"/50.8mm filter)

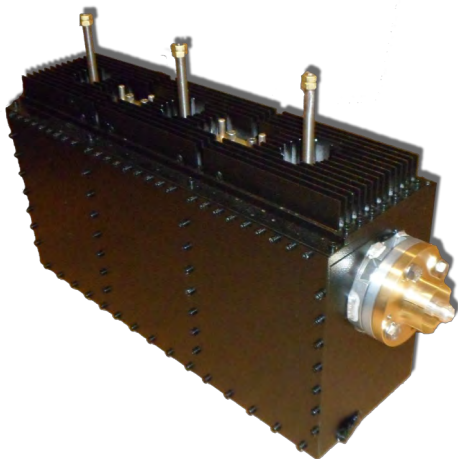
- Power level 250W average
- 470-860 MHz frequency
- VSWR 1.10:1
- Connectors DIN 7-16 Female
- Critical available



RCEC-DF6-UM

UHF non-critical mask filter ATSC/DVB-T/ISDB-T (4"/101.6mm) designed to provide superior mask filter performance at an affordable price. Cross coupling creates steep rejection skirts and the high-Q cavities provide low passband insertion loss in a compact design.

- Power level 500W average
- 470-860 MHz frequency
- VSWR 1.10:1
- Connectors DIN 7-16 Female, 7/8" EIA
- Critical available



RCBC-203-UHF

UHF reflective bandpass filter (6"/152.4mm)

- Power level 1.5kw average
- 470-860 MHz frequency
- VSWR 1.10:1
- Connectors 7/8" or 1-5/8" EIA flanged
- Critical available

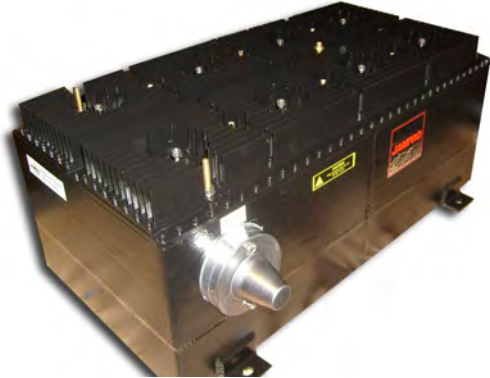
UHF BANDS IV & V

Filters/Combiners

RCEC-208-UMFH

Sharp-tuned 8-section cross-coupled UHF mask filter (6"/152.4mm)

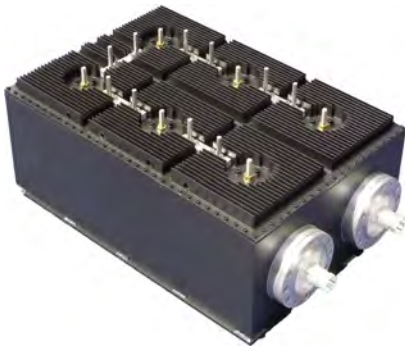
- Power level 1.5 kW average
- 470-860 MHz frequency
- VSWR 1.10:1
- Connectors 1-5/8" or 3-1/8" EIA Flanged
- Non-critical available



RCEC-386-UM

UHF non-critical mask filter (8"/203.2mm)

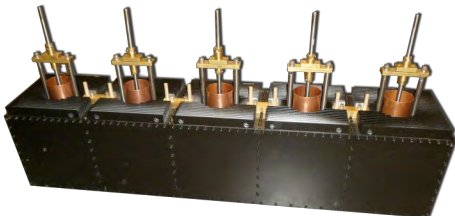
- Power level 5kW average
- 470-860 MHz frequency
- VSWR 1.10:1
- Connectors 3-1/8" EIA Flanged or 1-5/8"
- Critical available



RCBC-385-UFHT

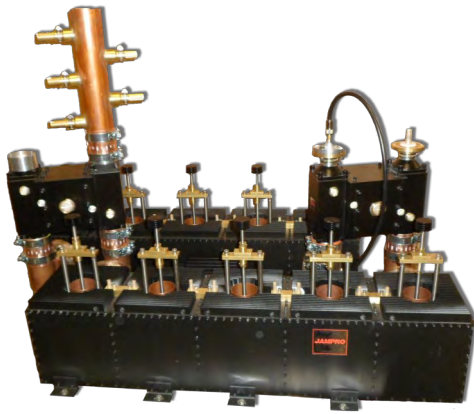
UHF tunable bandpass filter (8"/203.2mm)

- 470-860 MHz frequency
- VSWR 1.10:1
- Connectors 3-1/8" EIA Flanged or 1-5/8"
- Critical available



UHF BANDS IV & V

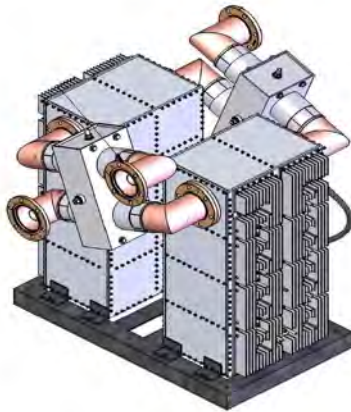
Filters/Combiners



RCCC-X0X-1UT Re-Tunable Channel Combiner

UHF Origin Series Constant Impedance Combining Systems provide outstanding performance in a compact unitized design. Standard units come in single channel modules which can be cascaded for multiple channel configurations.

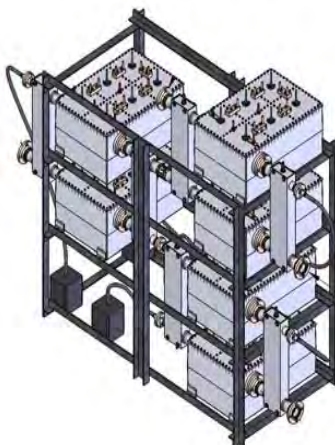
- 10 kW Input power per channel
- VSWR < 1.10:1
- Channel bandwidth 6 or 8 MHz
- Low insertion loss
- High isolation



RCCC-X0X-AUH UHF Mask Filter/Combiner

Constant impedance channel combiner provides broadcasters with the ability to combine UHF television transmitters.

- 3 kW Input power per channel
- VSWR 1.1:1
- Channel bandwidth 6 or 8 MHz
- Low insertion loss
- High isolation



RCCC-203-1U DVB-T UHF Mask Filter/Combiner

1-kW per channel UHF constant impedance DVB-T mask filter combining system provides outstanding performance in a compact unitized design. Sharp tuned performance with virtually no frequency drift typifies these combining systems.

- Power levels available from 3 kW
- 50 ohm Impedance
- VSWR 1.1:1
- Low insertion loss
- High isolation

UHF BANDS IV & V

Filters/Combiners

RWCE UHF Waveguide Filter/Combiner



Waveguide constant impedance cross-coupled combiner provides the high isolation needed for adjacent channel combining applications. This system allows different high power UHF channels to combine & use one common antenna /feed system while still maintaining low insertion loss.

- UHF Bands IV & V
- Power levels up to 120 kW per channel
- Rugged high quality design
- Low insertion loss
- High isolation

RWBW UHF Waveguide Filter



UHF Waveguide bandpass filter consisting of single mode filters with high isolation in a compact design. Varies from 3, 4, 5 or 6 sections.

- Bandwidth 6 or 8 MHz
- VSWR 1.08:1 over bandwidth
- Power level 50 kW peak sync (typical)
- Low insertion loss
- High isolation

RWBE UHF Waveguide Filter



UHF 6-section dual mode Waveguide bandpass filter constructed with dual mode cavities. High isolation with a compact design is ideal for low loss performance.

- UHF Bands IV & V
- Power level 20 kW peak sync
- VSWR 1.10 over bandwidth 6 or 8 MHz
- Low insertion loss
- High isolation

UHF BANDS IV & V

Filters/Combiners



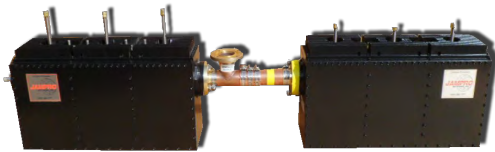
RCCS UHF Combiner

The RCCS is composed of multiple bandpass filters joined by precisely phased rigid line. The spacing of the channels determines the filter order employed.

- VSWR < 1.08:1
- Power level 5 kW per channel
- 2, 3, 4 channels
- Low insertion loss
- High isolation

RCCS-202-3UH UHF Combiner

Two section starpoint combiners can accommodate two, three or four NTSC or PAL channels.

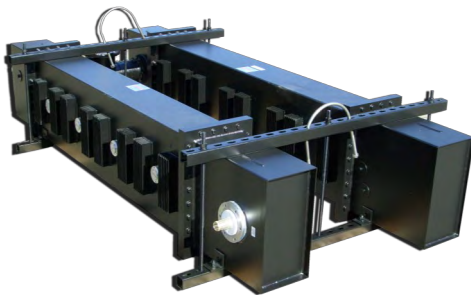


- VSWR < 1.08:1
- Power level 3 kW per channel
- 2 channel typical (Other configurations available)
- Low insertion loss
- High isolation

RWCS UHF Waveguide Combiner

Two channel UHF waveguide branched combiner. Ideal for combining 2 medium power channels.

- Power level 20kW per channel (*Higher power levels available)
- Excellent VSWR
- Low insertion loss
- High isolation



UHF BANDS IV & V

Filters/Combiners

RCHC-UHF Hybrid Combiner

Three dB combiner is ideal for combining two UHF transmitters to provide high power.



- Power handling 2 x 10kW average (*Higher power levels available)
- Coupling 3 dB +/- 0.1 dB
- Insertion loss 0.1 dB Max over band
- VSWR 1.06:1 Max over band (470-700 MHz)
- Isolation >30 dB over band
- Available with 1-5/8" or 3-1/8" connectors

Digital Monitoring



- LCD color touch screen with metering
- Forward & reflected power
- Local control and monitoring
- HMI layout mapped into the RTU register database
- Customization available as needed
- Remote access with limited TCP/IP access with web server

Other RF Components Available



- FM & VHF Switchless combiner
- Waveguide line & accessories
 - Elbows
 - Transitions
 - Hybrids

VHF BANDS I, II (FM) & III

Filters/Combiners

- RCBC-X0X-FM
- RCBC-X9X-FM
- RCBC-X1X-FM
- RCBC-X2X-FM
- RCEC-194-FMH
- RCCS-X0X-FM
- RCCS
- RCCC-102
- RCCC-X2X-1.2
- RCBI-VHF
- RCBC-D06-V
- RCHA
- RCHC
- RCFR
- RCNQ

VHF BANDS I, II (FM), & III

Filters/Combiners



RCBC-X0X-FM Bandpass Filter

FM low power combline bandpass filters are designed to provide optimum performance in a small package size. Type "N" or 7/8" EIA connectors are available as required by the applications. (4"/101.6mm)

- 2, 3 & 4 section combline
- Frequency 88 to 108 MHz
- Power level 1kW Max
- VSWR 1.2:1 +/- 150 kHz
- Low insertion loss
- High isolation



RCBC-X9X-FM Bandpass Filter

This design used for input power levels up to 2 kw. 7/8" EIA male connectors are standard and unflanged available upon request. (8"/203.2mm)

- 2, 3 & 4 section combline
- Frequency 88 to 108 MHz band II (FM)
- Power level 3kW
- VSWR 1.1:1 +/- 150 kHz
- Low insertion loss
- High isolation



RCBC-X1X-FM Bandpass Filter

Iris Coupled Combline Bandpass Filters are designed to provide superior performance for medium power transmitter systems in a modular configuration. Filters with either two, three, four or five sections designed, assembled, tested and shipped from stock. (11.5"/292.1mm)

- 2, 3 & 4 section combline
- Frequency 88 to 108 MHz
- Power level 5kW (8kw with heat sinks)
- VSWR 1.1:1 +/- 150 kHz
- Low insertion loss
- High isolation

VHF BANDS I, II (FM), & III

Filters/Combiners



RCBC-X2X-FM Bandpass Filter

FM iris coupled combine bandpass filters are designed to provide superior performance for medium/high power transmitter systems in a modular configuration. Temperature stability is maintained through the use of invar tuning rods on copper center conductors. 3-1/8" EIA male connectors are standard. (18"/457.2mm)

- 2, 3 & 4 section
- Frequency 88 to 108 MHz
- Power level 15kW to 20kW with heat sinks (*Other power levels avail.)
- VSWR 1.08:1 +/- 150 kHz



RCEC-194-FMH Cross-Coupled Bandpass Filter

FM Elliptical bandpass filter designed for low to medium power applications that require filtering for close spaced channels.

- Frequency 88 to 108 MHz
- VSWR 1.08:1 +/- 125 KHz
- Power level 2kW-5kW (*Higher power levels available)
- Low insertion loss
- High isolation



RCCS-X0X-FM FM Low Power Combiner

Low power FM Starpoint combiner provides an inexpensive method to combine two or more low power signals. Band II (FM) 87.5 to 108 MHz frequency range

- VSWR 1.10:1
- Isolation +/- 34 dB (Typical)
- Power level 1kW per channel (*2 kW power level available)
- Low insertion loss

VHF BANDS I, II (FM), & III

Filters/Combiners



RCCS FM Starpoint Combiner

RCCS combiners employ bandpass filters and various lengths of transmission line configured to make these filters mutually invisible.

- VSWR 1.10:1
- Isolation +/- 34 dB (Typical)
- Power level 10kW per channel
- Higher power applications available
- Low insertion loss



RCCC-102 FM Bandpass Combiner

FM constant impedance combiner family has a compact modular design that can be configured to fit into the smallest transmitter rooms. This simple modular design allows you to easily add an additional frequency for future operations.

- 800kHz minimum channel spacing
- VSWR 1.10:1
- 50 ohm Impedance
- 87.5 to 108 MHz frequency range
- Power level 3kW typical (*Higher power levels available)



RCCC FM Bandpass Combiner

FM constant impedance bandpass combiner.

- Power levels available up to 40kW per frequency/channel
- VSWR 1.1:1
- Models available from 1-5/8" to 9-3/16" EIA connections
- Low insertion loss
- High isolation

VHF BANDS I, II (FM), & III

Filters/Combiners



RCBI- VHF Bandpass Filter

VHF Band I or III inter-digital filter designed to minimize size.

- 54-82 & 174-237 MHz frequency range
- 5 to 9 sections typical
- Excellent VSWR
- Low insertion loss
- High isolation



RCBC-D06-V Bandpass Filter

VHF band III bandpass DAB mask filter

- 3, 4 & 5 sections
- Frequency range 174-237 MHz
- Power level up to 2kW
- Excellent VSWR
- Low insertion loss
- High isolation



RCHA Hybrid Combiner

Digital FM 10 dB radio combiner provides high levels of isolation and properly sized inputs for analog and digital FM transmitters. The combiner has been engineered according to HD Radio™ standards.

- 10 dB HD Radio™ Station Combiner
- Power rating 30kW analog & 3.5kW digital
- Isolation > 40 dB
- Coupling 10 dB
- VSWR < 1.06:1 across band
- Other combinations available

VHF BANDS I, II (FM), & III

Filters/Combiners



RCHC Hybrid Combiner

Three dB combiner is ideal for combining two VHF transmitters to provide high power.

- Coupling 3 dB +/- 0.1 dB
- Insertion loss 0.1 dB Max over band
- VSWR 1.06:1 Max over band
- Isolation >30 dB over band
- Power levels 1 to 250kW (*Higher power levels available)



RCFR Harmonic Filter / Lowpass

Lowpass harmonic filters provide high levels of second and third harmonic rejection for Hi-VHF-TV, UHF-TV and FM transmitters. The filters are available in a number of sizes and configurations.

- Bands FM, Low-VHF, Hi-VHF and UHF
- Insertion loss 0.1 dB Max
- VSWR 1.06:1 Max
- Rejection 2nd Harmonic— 40dB Max & 3rd Harmonic—40dB Max



RCNQ FM Notch Filter

Coaxial quarter wave coaxial notch filters are designed for suppression of intermod products and rejection of a single frequency,

- Low insertion loss (0.1 typical)
- Rejection 30 dB Minimum
- VSWR 1.08:1 Maximum
- Compact size
- High "Q" aluminum cavity

RF PRODUCTS

Other

- RCID
- RCDS
- RCPU

OTHER RF PRODUCTS



RCID Directional Coupler

Dual coaxial directional coupler line sections are used to couple and allow measurement of forward and/or reflected power levels in a coaxial transmission line.

- Frequency 50 to 860 MHz (typical)
- Coupling -35dB to -70dB adjustable (typical)
- VSWR 1.04:1 Max
- Directivity 30 dB Min
- Available with 1-5/8" to 6-1/8" line



RCDS Notch Diplexer

Notch diplexer is designed to combine visual and aural signal together utilizing quarter wave coaxial notch filters. These feature low insertion loss and VSWR combined with high rejection packaged in a compact high "Q" cavity.

- Power levels up to 10 kW
- VHF bands I & III
- Visual VSWR at FV: 1.06:1 Max
FV -1.25 to FV+4.18: 1.08:1 Max



RCPU Patch Panel Power Splitter

Power splitter and patch panel assembly divide the output of the Band II (FM) 88-108MHz combiner or transmitter into two equal signals. The unit is composed of one power splitter, a quick release patch panel and interconnecting coaxial lines.

- Interlock safety switches
- RF equipment rack mounting
- RF power and/or VSWR monitoring
- Quick release and standard U-links
- Analog and digital monitoring available



UHF Waveguide Constant Impedance
Combiner with Unitized Power Splitter & Patch Panel



When You Want More Than Just an Antenna

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