

VHF/UHF Cavities

These versatile multicouplers permit the connection of a number of transmitters, receivers, or transmitter-receiver combinations, operating on different frequencies, to a common broadband antenna, radiating cable or distributed antenna system.

They feature temperature compensated resonators and are mounted vertically in a 19" rack.

The multi-couplers can also be used as bandpass cavity diplexers. Customised solutions are available for special Tx/Rx frequency combiners.

Isolators can be fitted to the Tx port to increase isolation from adjacent transmitters (Suffix F). Wide band versions are available (Suffix W)

A number of standard filter configurations are described. However, since requirements for isolation between channels, insertion loss, and channel separation are variable and depend upon individual installations, filter characteristics, number of resonators, etc. will vary accordingly, if economical multicoupling systems are to be achieved.

RFS LMR systems engineers will be pleased to advise on the most suitable combination for your requirements.

Features

- Highly stable temperature compensated resonators
- Frequency drift less than .00015% per °C
- Techniques suitable for frequency spacing as close as 0.10% of Fc
- Minimum insertion loss filter design
- Vertical 19 inch rack mounting



Ordering Information

The following information is needed when ordering these cavities:

- The type of cavity.
- Number of channels.
- The frequencies for each channel.
- Pass band and insertion loss required.
- Selectivity and attenuation required outside the passband.

GENERAL SPECIFICATIONS

Impedence	50 ohms unbalanced
Maximum System VSWR	Less than 1.3:1 (4-channel)



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VHF/UHF Cavity Solutions

CALL 1-815-790-4494

CP115 Series VHF Cavities used as combiners/RMC's or duplexers

	CP115-422	CP115-423	CP115-424
Frequency range, MHz	115-140	115-140	115-140
Number of Channels	2	3	4
Minimum Channel Spacing, KHz	900	900	900
Tx-Tx isolation, dB	30	30	30
Insertion loss per channel dB	2.0	2.0	2.0
Continuous Power , Max W	100	100	100
Connectors	N Skt	N Skt	N Skt
Temperature Range Deg C	-10 to + 60	-10 to + 60	-10 to + 60

CP145 Series VHF Cavities used as combiners/RMC's or duplexers

	CP145-432	CP145-423	CP145-434
Frequency range, MHz	148-174	148-174	148-174
Number of Channels	2	3	4
Minimum Channel Spacing, KHz	700	900	700
Tx-Tx isolation, dB	30	30	30
Insertion loss per channel dB	2.0	2.0	2.0
Continuous Power , Max W	100	100	100
Connectors	N Skt	N Skt	N Skt
Temperature Range Deg C	-10 to + 60	-10 to + 60	-10 to + 60

CP225 Series VHF Cavities used as combiners/RMC's or duplexers

	CP225-422	CP225-423	CP225-424
Frequency range, MHz	225-360	225-360	225-360
Number of Channels	2	3	4
Minimum Channel Spacing, KHz	1500	1500	1500
Tx-Tx isolation, dB	30	30	30
Insertion loss per channel dB	2.0	2.0	2.0
Continuous Power , Max W	100	100	100
Connectors	N Skt	N Skt	N Skt
Temperature Range Deg C	-10 to + 60	-10 to + 60	-10 to + 60

CP270 Series VHF Cavities used as combiners/RMC's or duplexers

	CP270-422	CP270-423	CP270-424
Frequency range, MHz	270-420	270-420	270-420
Number of Channels	2	3	4
Minimum Channel Spacing, KHz	1500	1500	1500
Tx-Tx isolation, dB	30	30	30
Insertion loss per channel dB	2.0	2.0	2.0
Continuous Power , Max W	100	100	100
Connectors	N Skt	N Skt	N Skt
Temperature Range Deg C	-10 to + 60	-10 to + 60	-10 to + 60

CP450 Series VHF Cavities used as combiners/RMC's or duplexers

	CP450-422	CP450-423	CP450-424
Frequency range, MHz	450-520	450-520	450-520
Number of Channels	2	3	4
Minimum Channel Spacing, KHz	2000	2000	2000
Tx-Tx isolation, dB	30	30	30
Insertion loss per channel dB	2.0	2.0	2.0
Continuous Power , Max W	100	100	100
Connectors	N Skt	N Skt	N Skt
Temperature Range Deg C	-10 to + 60	-10 to + 60	-10 to + 60