

This Wouldn't Be Your
SECURE
COMMUNICATIONS
If You Used Ours!

MICROPHASE

**Solve The Most Difficult
Interference With The
Microphase
Frequency Agile Filters.**



**Built To Your Specifications
To Effectively Solve
The Most Difficult Interference Issues:**

Cosite Interference
Intentional Jammers
Broadband Noise
Spectral Splatter
Fraudulent Transmit Signals



Digitally Tuned Filters

Frequency Agile Filters - R8500

AKA “Hopping Filters”

Secure Communications

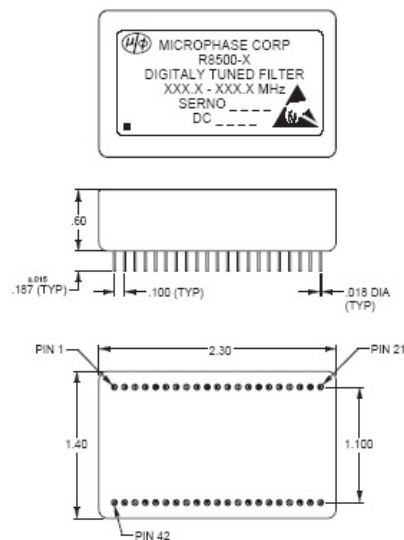
Command, Control, Communications

Co-Site Communications Interference

Digitally Tuned Filters



DESCRIPTION The Frequency Agile Filters are controlled using an 8-bit parallel interface, allowing 251 tune words for frequency control. Tuning is initiated by a 1-to-0 transition of a separate digital input strobe. A power saving mode is initiated by sending a binary 255 command to the filter, which turns off all the diodes and minimizes current consumption by the digital components. The filter has 250 equally spaced steps across the tuning range. Digital addresses from 251 through 254 results in a high-isolation



state for the filters. This sealed unit can also be adapted for custom configurations. Compact and very rugged, all of our products are 100% tested, and readily available. This component can be designed to your specifications.

Model Number	Freq. Range (MHz)	3.0 dB % Bandwidth	Insertion Loss @ Fo (dB)	VSWR @ Fo (Zo=50 Ohms)	Shape Factor 30 dB BW/3.0 dB BW	Input PWR Handling (dBm)	Tuning Control	Tuning Speed
R8500-1	1.5 to 4.0	3 to 20%	0.8 to 6.5	2.0:1	<= 6.5:1	30 dBm	8 Bit TTL	50µS
R8500-2	4.0 to 10.0	3 to 20%	0.8 to 6.5	2.0:1	<= 6.5:1	30 dBm	8 Bit TTL	50 µS
R8500-3	10.0 to 30.0	3 to 20%	0.8 to 6.5	2.0:1	<= 6.5:1	30 dBm	8 Bit TTL	50 µS
R8500-4	30.0 to 90.0	3 to 20%	1.0 to 6.5	2.0:1	<= 6.5:1	30 dBm	8 Bit TTL	10 µS
R8500-5	90.0 to 200	3 to 20%	1.0 to 6.5	2.0:1	<= 6.5:1	30 dBm	8 Bit TTL	10 µS
R8500-6	200 to 400	3 to 20%	1.5 to 6.5	2.0:1	<= 6.5:1	30 dBm	8 Bit TTL	10 µS
R8500-7	225 to 450	3 to 20%	1.5 to 6.5	2.0:1	<= 6.5:1	30 dBm	8 Bit TTL	10 µS
R8500-8	400 to 700	3 to 20%	1.0 to 6.0	2.0:1	<= 6.5:1	30 dBm	8 Bit TTL	10 µS
R8500-9	700 to 1000	3 to 20%	1.0 to 6.0	2.0:1	<= 6.5:1	30 dBm	8 Bit TTL	10 µS



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These units can be designed to your specification. Please contact Microphase for your special design requirements.