



Tactical Radio Products

RF-5045/ RF-5845H-PP **DIGITAL PRE/POSTSELECTOR**



*provides significant reduction
of unwanted receive signals
and spurious transmitter
outputs, allowing collocated
operation of two
or more systems*

The digitally-tuned, high-performance RF-5045 Pre/postselector, is designed for operation in rugged tactical environments as part of the 125 or 400 watt FALCON® Series RF-5000 system, while the RF-5845H-PP operates with the FALCON® II RF-5800H-MP systems.

Fully automatic operation (controlled from the host transceiver) and rapid tuning capability make pre/postselector operation virtually transparent to the user. Operational configuration and BITE/fault status reporting are all done through the respective transceivers.

The RF-5045/RF-5845H-PP uses the rugged tactical packaging and meets the same environmental specifications for temperature, shock, vibration, and submersibility as the rest of the FALCON and FALCON II family components. This capability ensures that collocation requirements can be met in even the harshest environments.

Operation is fully automatic. Built-in test equipment (BITE) and diagnostic testing are fully integrated into the transceiver system. The RF-5045/RF-5845H-PP packaging allows it to be fitted into standard RF-5000 Series mounts and systems.

The RF-5045/RF-5845H-PP attenuates unwanted transmit and receive signals 10 percent removed from the operating frequency by 40 dB (nominal). An additional unit can be cascaded for greater attenuation should this be required. A bypass function and separate receive antenna port give the pre/postselector the flexibility to meet virtually any system requirement.

The RF-5045/RF-5845H-PP will tune to a new channel in less than 20 msec. This agility ensures compatibility with MIL-STD-188-141A Automatic Link Establishment (ALE) and other advanced modes of operation.



General

Frequency Range	1.6 to 30 MHz (Bandpass filters used 2.0 to 30 MHz, low pass filter below 2.0 MHz)
Dimensions	5.3H x 15.25W x 11.82D inches (13.97H x 38.74W x 30.00D cm)
Weight	22.4 lb. (10.2 kg)
Operating Temperature	-40° to 70°C
Shock	MIL-STD-901D
Vibration	MIL-STD-810D
leakage	MIL-STD-810E (1 m submersible)
Humidity	MIL-STD-810E (0 to 95%)
DC Voltage	18 – 32 VDC
DC Current	1.5 Amps. at 26.4 VDC, 2.5 Amp.breaker

Electrical

Bandpass Selectivity	40 dB nominal (± 1 dB) at $\pm 10\%$ from tuned frequency
Tune Time	<20 msec from end of frequency data, typically 12.5 msec
Input Impedance	50 ohm unbalanced, VSWR <2:1
Maximum Bypass Power	400 watts, 2:1 VSWR
Overall Gain	High Gain: 3 ± 3 dB Low Gain: -8 ± 3 dB
Noise Figure	13 dB maximum (high gain)
RF Overload Trip Points	In band: 10 VRMS; Out of Band: 100 watts nominal peak, average power thermally limited
Control	Serial data bus from RF-5022R/T(E), RF-5022R/T(E)C, or RF-5800H-MP Transceiver

Classification

RF-5045	RF-5022R/T(E) (Olive Drab) or RF-5022R/T(E)C (CARC) compatible digital pre/postselector. Color: Olive Drab
RF-5045-02	Same as RF-5045 except Color: CARC Green 383
RF-5845H-PP001	RF-5800H-MP compatible digital pre/postselector. Color: CARC Green 383

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