

assuredcommunications™

RF-5845H-PP101 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-5845H-PP101 Pre/postselector, is designed for operation in rugged tactical environments as part of the FALCON® II RF-5800H-MP and AN/PRC-150(C) 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-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 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-5845H-PP packaging allows it to be fitted into standard RF-5800H Series mounts and systems.

The 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-5845H-PP will tune to a new channel in less than 20 msec. This agility ensures compatibility with MIL-STD-188-141B Automatic Link Establishment (ALE), STANAG 4538 third generation, and other advanced modes of operation. The RF-5845H-PP101 includes all interconnecting cables.



Specifications for the RF-5845H-PP101

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-810E Vibration MIL-STD-810E

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

Color CARC Green 383

Electrical

Bandpass Selectivity 40 dB nominal (±1dB) at ±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: $-8 \pm 3 \, dB$

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 Transceiver



