

Avionics

RDX-7708 and RDC-7708

Weather Radar Test Set



Comprehensive RF Test Set for ARINC 708 Solid State Coherent Weather Radar Systems

- Endorsed by OEM Weather Radar System manufacturers
- Built-in Doppler shift
- Digital readout of output frequency or PRF
- Digital readout of transmitter power PRF controlled manually, or by transmitter or external sync input
- Pulse width manually controlled, equal to transmitter input or 270 microseconds (fixed)

Aeroflex is a leader in the design, manufacture and marketing of Avionics test systems.

The RDX-7708 or RDC-7708 test sets provide an RF source and monitor for complete RF testing of ARINC 708 T/R (Transmitter/Receiver) units including wind shear variants.

The RDX-7708 has three variants accomodating the Radar T/R supplied VHF reference frequencies for the Rockwell Collins or Honeywell (Allied Signal) 'X' band radar systems. A dual reference frequency variant is also available. The RDC-7708R is a special variant for testing the Rockwell Collins 'C' Band radar system.

Transmitter Power measurement is via a waveguide mounted RF power module. This method minimizes measurement errors due to RF coaxial cable loss variations.

Additional Features

- Range reply selectable in 1 μ s or 1 mile increments
- RF output adjustable in 1 dBm increments to -127 dBm
- Contour boost in 0.1 dB increments to +20 dB
- Built-in variance modulator

All the above features can be remotely controlled through the IEEE 488-1978 GPIB versions.

- Monitor outputs for detector, spectrum analyzer and sync

SPECIFICATIONS

RDX-7708R, BRW or RDC-7708R

REFERENCE RF INPUT

Rockwell Collins X Band

152.777 MHz

Rockwell Collins C Band

146.666 MHz

Allied Signal X Band

78.6616 MHz

RF OUTPUT (REFERENCE OR VARIABLE)

FREQUENCY

RDX-7708 Range

9295 to 9425 MHz

RDC-7708 Range

5350 to 5470 MHz

OUTPUT LEVELS

Range

-50 to -127 dBm in 1 dB steps (at 20 dB coupler output)

Accuracy

±2 dB over frequency and attenuation range

CONTOUR BOOST

Range

0 to 19.9 dB for RF outputs ≤ -70 dBm

DOPPLER OFFSET

Range

0 to +29 kHz

Resolution

1 kHz

RF ON/OFF Ratio

70 dB or greater

PULSE MODULATION

INTERNAL PRF GENERATOR

Range

0 to 9999 pps

Resolution

1 Hz

OUTPUT PULSE WIDTH

Range

0 to 99 ms and 270 μs (fixed)

Resolution

0.1 μs

RETURN DELAY

Range

1 to 999 μs or NM

Resolution

1 unit

DISPLAYS

FREQUENCY COUNTER

Accuracy

±3 kHz

Resolution

1 kHz

PEAK POWER INDICATOR

Range

RDX-7708 - 40 to 250 W

RDC-7708 - 80 to 500 W

Accuracy

-0.6 dB

Resolution

1 W

VERSIONS AND ACCESSORIES

When ordering please quote the full ordering number information.

Ordering Numbers

Selection Information

RDC-7708R	Rockwell Collins C band
RDX-7708BRW	Allied Signal X band
RDX-7708CRW	Dual reference Rockwell Collins X band and Allied Signal X band
RDX-7708R	Rockwell Collins X band

Versions

RDXR	RDX-7708R Weather Radar Bench Test (152.777 MHz/GPIB)
RDXBRW	RDX-7708BRW Weather Radar Bench Test (78.6616 MHz)
RDXCRW	RDX-7708CRW Weather Radar Bench Test (152.777 MHz & 78.6616 MHz/GPIB)
RDCR	RDC-7708R Weather Radar Bench Test (146.666 MHz/GPIB)

Accessories (Supplied)

- Line Cord
- Microwave Coaxial Cable
- BNC to BNC Coaxial Cable (Video Detector)
- RF Power Module
- 20 dB Attenuator (RDX-7708 only)

GENERAL

Dimensions

427 mm wide, 178 mm high, 467 mm deep

16.8 in. wide, 7 in. high, 18.4 in. deep

Weight

RDX-7708 or RDC-7708 - 15 kg (33 lbs.)

Power Requirements

RDX-7708 or RDC-7708 110/220 VAC, 50-400 Hz

Power Consumption

100 W