

# 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 accommodating 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  $\mu$ 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**

$\pm 2$  dB over frequency and attenuation range

## **CONTOUR BOOST**

### **Range**

0 to 19.9 dB for RF outputs  $\leq$  -70 dBm

## **DOPPLER OFFSET**

### **Range**

0 to +29 kHz

### **Resolution**

1 kHz

### **RF ON/OFF Ratio**

70 dB or greater

## **PULSE MODULATION**

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### **INTERNAL PRF GENERATOR**

#### **Range**

0 to 9999 pps

#### **Resolution**

1 Hz

### **OUTPUT PULSE WIDTH**

#### **Range**

0 to 99 ms and 270  $\mu$ s (fixed)

#### **Resolution**

0.1  $\mu$ s

### **RETURN DELAY**

#### **Range**

1 to 999  $\mu$ s or NM

#### **Resolution**

1 unit

## **DISPLAYS**

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### **FREQUENCY COUNTER**

#### **Accuracy**

$\pm 3$  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

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## **VERSIONS AND ACCESSORIES**

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*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**

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### **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*