

# RACAL DANA 1999 FREQUENCY COUNTER

## SUMMARY OF TECHNICAL SPECIFICATIONS

### Input Characteristics

#### Input A

<b>Frequency range</b>	10 Hz to 160 MHz
<b>Input Impedance (nominal)</b>	
X1 attenuation	1 Megohm/40 pF ( AC coupled ) or 50 ohms ( DC coupled )
X20 attenuation	1 megohm/25pF(AC coupled) 50 ohms ( DC coupled )
<b>Dynamic Range</b>	+/- 1V pk (X1), +/- 20 V pk (X20)
<b>Sensitivity</b>	
Sinewave	<10 mV rms, 20 Hz to 120 MHz <50 mV rms, 120 to 160 MHz <20 mV rms , 10 Hz to 20 Hz
<b>Input Attenuation Range</b>	0dB to appr. 58 dB in two ranges continuously variable using sensitivity control and X1/X10 attenuator control

#### Maximum Input (without damage)

50 ohms	10Vrms ( DC coupled)
1 Megohm (X1 attenuation)	260V ( DC + AC rms) from DC to 10 KHz, decreasing to 10 V rms above 250 KHz
1 Megohm (X20 attenuation)	260V ( DC + AC rms) from DC to 200 KHz, decreasing to 10 V rms at 5 MHz and above

<b>Trigger levels</b>	Three selectable trigger levels are available to provide optimum triggering on waveforms with different duty cycles
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<b>Filter</b>	50 KHz nominal low pass filter
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#### Ratio A/D

<b>Burst</b>	1mS + Gate time
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#### Input B

<b>Frequency range</b>	80 MHz to 2.6 GHz ( 3 GHz under restricted operation conditions)
<b>Input Impedance (nominal)</b>	50 ohms , AC coupled ( N-type Connector)
<b>VSWR</b>	Typically < 1.5 : 1
<b>Operating Range (sinewave)</b>	<10mV to 4 Vrms min. 80 mhz to 2.6 GHz
<b>Overload</b>	Protection/indication above 4 V min.
<b>Damage Level</b>	+ 33dBm , +/- 40 V DC or pulsed

#### Input D

<b>Frequency range</b>	Used in Ratio A/D mode 10 KHz to 10 MHz usable down to 1 KHz with reduced sensitivity
<b>Input Impedance (nominal)</b>	1 kohm for signals <1Vpp, decreasing to 500 ohm for signals >10Vpp (AC coupled)
<b>Input Signal Range (sinewave)</b>	100 mV to 10V rms, 10 KHz to 10 MHz Typically 1V to 10 V rms, 1 KHz to 10 KHz
<b>Damage Level</b>	260 V(DC+AC rms) up to 384 KHz decreasing to 10 V rms above 10 KHz

#### External Arming

<b>Damage Level</b>	External TTL timing signal can be applied to EXT ARM INPUT (rear panel) 10Vrms or +/- 15Vpk
<b>Input Impedance</b>	1kohm nominal (DC coupled)
<b>Slope</b>	Armed on possitive edge
<b>Slew rate</b>	2V/uS min.
<b>Pulse Width</b>	200nS min.
<b>set Up Time</b>	100nS after input edge