

## ATTENUATOR HIGH RELIABILITY CHIP

DATASHEET

PART SERIES: HR03XXXW1

Sheet 1 of 3  
Doc# HR03XXXW1-1009915ECO-082606  
Revision B

## ORDERING INFORMATION

## PART IDENTIFIER: HR03XXXW1

→ (X)=Test Code: A=Group A; B=Group B; C=Group C  
→ (XX)=dB VALUE (01 – 20 dB see Table 1)

## Engineering Notes:

Single lot and date code available upon request.

Test Times: Group A=2 Weeks

Group B=8 Weeks

Group C=8 Weeks

Standard Lead Time 10 weeks to build product before testing if no stock available.

Assembly DWG: N/A

TABLE 1		
ATTENUATION ACCURACY		
dB	DC - 4 GHz	4 - 8 GHz
1 - 3	±0.3	±0.5
4 - 6	±0.4	±0.5
7 - 10	±0.5	±0.5
11 - 15	±0.75	+0.5, -3.0
16 - 20	±1.0	+0.5, -4.0

## SPECIFICATIONS

## 1. ELECTRICAL:

Nominal Impedance:	50 $\Omega$
Frequency Range:	DC – 8 GHz
Attenuation Values Available:	1-20 dB in 1 dB Increments
Attenuation Accuracy:	See Table 1
Attenuation Stability:	0.0001 dB/dB/°C
VSWR:	DC - 4 GHz – 1.25, 4 – 8 GHz – 1.35.
Input Power: 2 Watts CW	Full Rated Power To 125°C, Derated Linearly to 0 Watts at 150°C. Peak Power, 50 Watts for 10 $\mu$ S Pulse Width @ 1% Duty Cycle.

## 2. ENVIRONMENTAL:

Altitude:	Non-Operating: Sea Level to 50,000 Feet. Operating: Sea Level to 50,000 Feet.
Temperature Range:	Non-Operating: -55°C to +150°C Operating: -55°C to +150°C
Vibration:	Per MIL-STD-202, Method 204, Cond. D.
Shock:	Per MIL-STD-202, Method 213, Cond. I.
Moisture Resistance:	Per MIL-STD-202, Method 106 except sub-cycle steps 7A, and 7B and Polarization and Load are not applicable.

### 3. MARKING:

Unit Marking: "dB Value" Legibility and Permanency per MIL-STD-130.

### 4. QUALITY ASSURANCE:

Verify 100% visual pre-cap inspection performed per TP-8965.

Perform Group A, B, and/or C testing as indicated by the part number per TP-8965.

Test Data Requirements:

Test Data required for customer: See paragraph 5.0 of TP-8965.

Data retention: 24 Months.

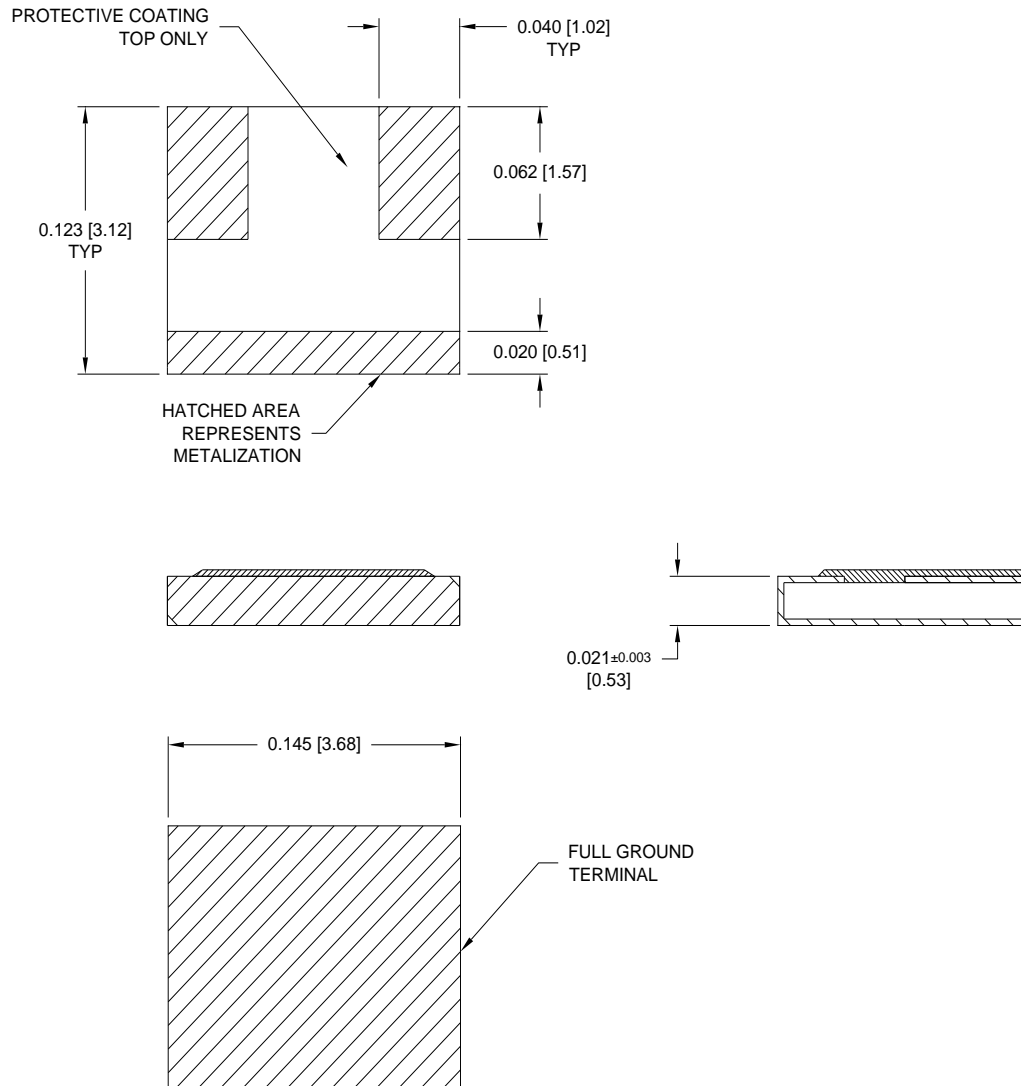
Test samples required for customer: See paragraph 5.0 of TP-8965.

### 5. PACKAGING:

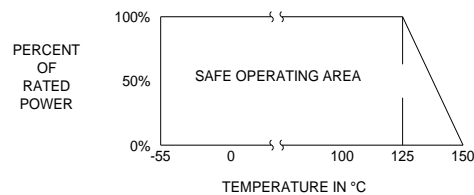
Standard Pack per 755W002 (Serialized Waffle Pack).

### 6. MECHANICAL:

Substrate Material:	Alumina, MIL - I – 10.
Resistive Element Material:	Thin Film, Tantalum Nitride.
Terminal and Ground Plane Material:	Thick Film, Nickel Barrier, Solder Plated.
Metric Dimensions [mm]:	Provided for reference information only.
Workmanship:	Per MIL-PRF-55342.
Outline Drawing:	See Sheet 3.



## POWER RATING AND DERATING



Unless Otherwise Specified Dimensions are in Inches: Tolerance X.XXX = ±0.005