

# ATTENUATOR CHIP 2 WATT



DATA SHEET

PART SERIES: TS03XX

SHEET 1 OF 3  
Dwg 1000435

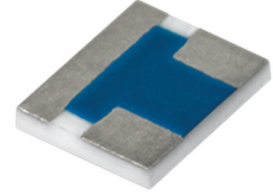
EN 16-0604  
Revision M

## FEATURES

- Small Footprint
- High Power
- Surface Mount
- Low VSWR
- Easy Installation
- Wide Attenuation Offering

## APPLICATIONS

- Mobile Networks
- Broadcast
- High Power Amplifiers
- Isolators/Circulators
- Military
- Instrumentation



## GENERAL DESCRIPTION

EMC Technology offers the widest selection of chip attenuators worldwide. Chip components are offered in Alumina, Aluminum Nitride, Beryllium Oxide, and CVD diamond for maximum performance.

## ORDERING INFORMATION

**Part Identifier: TS03XX**

**(XX) – dB Value**

## SPECIFICATIONS

### 1.0 ELECTRICAL

Nominal Impedance: 50 ohms  
 Frequency Range: DC – 12.4 GHz  
 Attenuation Values Available: 0 – 20 in 1 dB increments  
 Attenuation Accuracy:

ATTENUATION ACCURACY			
dB	DC – 4 GHz	4 – 8 GHz	8 – 12.4 GHz
0	+0.3, -0.0	+0.5, -0.0	+0.5, -0.0
1 – 3	±0.3	±0.5	±0.5
4 – 6	±0.4	±0.5	±0.5
7 – 10	±0.5	±0.5	±0.75
11 – 15	±0.75	+0.5, -3.0	+0.5, -3.5
16 – 20	±1.0	+0.5, -4.0	+1.0, -6.0

Input Power CW: 2 Watts full rated power to 125°C, derated linearly to 0 watts at 150°C.  
 Peak Power: 50 watts for 10us pulse width @ 1% duty cycle.  
 VSWR: DC – 4 GHz - 1.25:1  
 4 – 8 GHz - 1.35:1  
 8 – 12.4 GHz - 1.50:1

### 2.0 ENVIRONMENTAL

Operating Temperature: -55°C to +150°C  
 Non-operating Temperature: -55°C to +150°C  
 Temperature Coefficient: +/-200 PPM / °C max  
 Altitude Non-Operating: Sea Level to 50,000 Feet.  
 Altitude Operating: Sea Level to 50,000 Feet.  
 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. Polarization and Load Are Not Applicable.

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## 3.0 MARKING

Unit Marking: "dB Value"

## 4.0 QUALITY ASSURANCE

Sample Inspect Per MIL-STD-105, Level II, 1.0% AQL

Visual and Mechanical Inspection for Conformance to Outline Drawing

Measure Attenuation and VSWR

Data Retention - Standard

## 5.0 PACKAGING

Standard Packaging: Tape and Reel

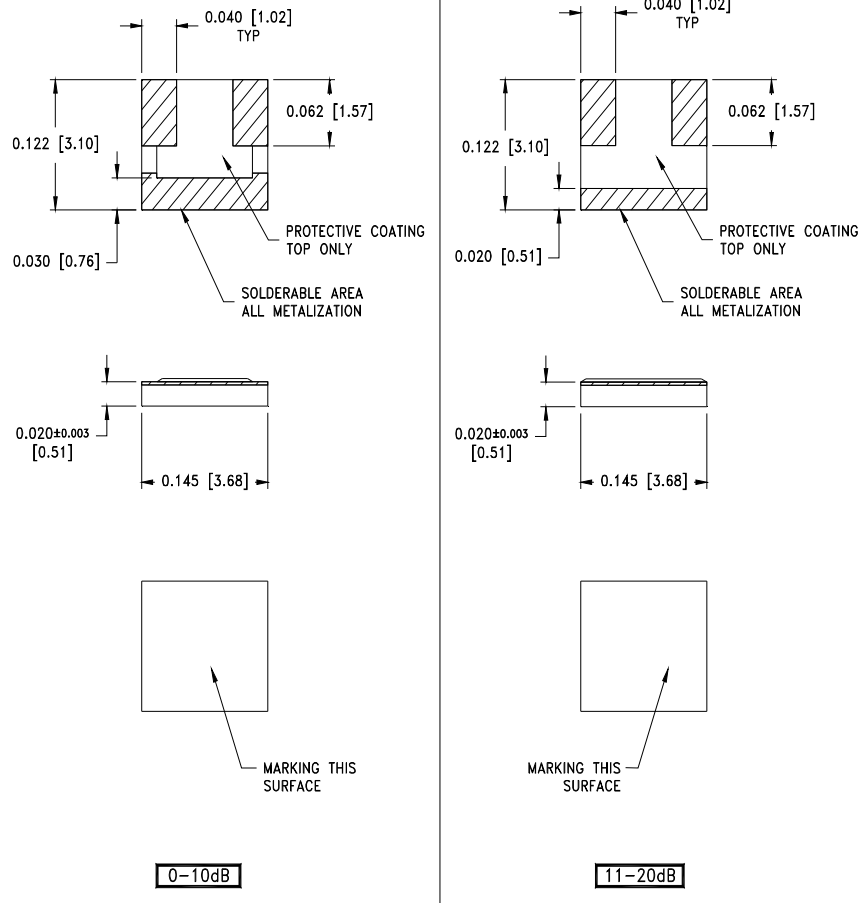
## 6.0 MECHANICAL

Resistive Film: Thin Film, Tantalum Nitride

Terminal Material: Thick Film, Nickel Barrier, Solder Coated

Metric Dimensions: Provided for reference only

Workmanship PER MIL-R-55342



Unless Otherwise Specified: TOLERANCE: X.XXX = ± 0.005

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## 7.0 SUGGESTED MOUNTING FOOTPRINT

Part Number	Inches						mm					
	A	B	C	D	S	W	A	B	C	D	S	W
TS03XX	0.043	0.065	0.065	0.025	0.040	0.150	1.09	1.65	1.65	0.64	1.02	3.81

