

# ATTENUATOR CHIP 1 WATT



DATA SHEET

PART SERIES: TS05XX

SHEET 1 OF 3  
Dwg 1000465

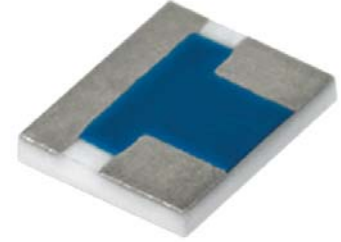
EN 16-0685  
Revision M

## 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:** TS05XX

**(XX) – dB Value**

## SPECIFICATIONS

### 1.0 ELECTRICAL

Nominal Impedance: 50 ohms  
 Frequency Range: DC – 18 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	12.4 – 18 GHz
0	-0,+ .3	-0,+ .5	-0,+ .5	-0,+ .5
1 – 3	±0.3	±0.5	±0.5	±0.5
4 – 6	±0.4	±0.5	±0.5	±0.75
7 – 10	±0.5	±0.5	±0.75	±1.0
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: 100 Milliwatts CW full rated power to 125°C, derated linearly to 0 watts at 150°C.  
 Peak Power: 1 watt for 10us pulse width @ 1% duty cycle.  
 VSWR: DC – 4 GHz - 1.25 Max  
 4 – 8 GHz - 1.35 Max  
 8 – 18 GHz - 1.50 Max

### 2.0 ENVIRONMENTAL

Operating Temperature: -55°C to +150°C  
 Non-operating Temperature: -65°C to +150°C  
 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 subcycle steps 7a and 7b and polarization and load are not applicable.

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## 3.0 MARKING

Unit Marking: Marked with dB value. Legibility and permanency PER MIL-STD-130

## 4.0 QUALITY ASSURANCE

Sample inspect per ansi/asqc z1.4 general inspection, level II, aql = 1.0.

Visual and mechanical examination for conformance to outline dwg requirements.

Perform inspection in accordance with 824w170 and 824f036 for commercial grade product.

Test data requirements:

No test data required for customer.

Data retention – 24 months packaging

Standard Packaging: Tape and Reel

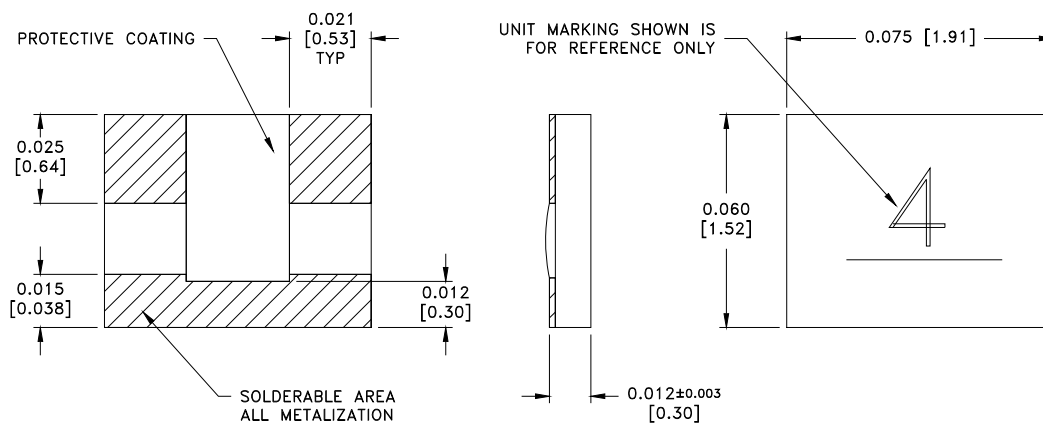
## 5.0 MECHANICAL

Resistive Film: Thin Film, Tantalum Nitride

Terminal Material: Thick Film, Nickel Barrier, Solder Plated

Metric Dimensions: Provided for reference only

Workmanship: PER MIL-PRF-55342



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

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## 6.0 SUGGESTED MOUNTING FOOTPRINT

Part Number	Inches						mm					
	A	B	C	D	S	W	A	B	C	D	S	W
TS05XX	0.025	0.027	0.030	0.015	0.019	0.080	0.64	0.69	0.76	0.38	0.48	2.03

