

# MODEL HIDENT6T51801

## 0.5-18GHz Broadband Digital Control Attenuator



Note: The photo is for illustration purposes only. Please refer to outline drawing

### ■ Features

- Ultra Wide Band
- Low Insertion Loss
- High Attenuator Range
- High Attenuator Accuracy

### ■ Applications

- Radar Systems
- Communication Systems
- Receivers Systems

### □ Electrical Specifications

Parameter	Min.	Typ.	Max	Units
Frequency Range	0.5-18			GHz
Insertion Loss		4.5	6	dB
Attenuation Range	63			dB
Input VSWR		1.8	2.5	
Output VSWR		1.8	2.5	
Switch Speed		1		us
Attenuation Step	1			dB
Control Bit TTL	6			Bit
Attenuation Accuracy	0-15dB $\pm 0.5$ dB; 16-30dB $\pm 1.5$ dB; 31-63dB $\pm 3$ dB			dB
Attenuation Flatness	0-15dB $\pm 0.5$ dB; 16-30dB $\pm 1.5$ dB; 31-63dB $\pm 3$ dB			dB
Input Max Power(no damage)			27	dBm
DC Power Supply	+12V@150mA, -12V @65mA			mA
Impedance	50			$\Omega$
Input Output Connector	SMA-K			
Material	Aluminium\Gold Painting			
Weight	50g			
Package Sealing	Epoxy Sealing (Standard) Hermetically Seal(Optional)			

### Environmental Conditions

Operational Temperature	-25°C~+65°C	Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Storage Temperature	-55°C~+125°C	Shock	20G for 11msc half sin wave, 3 axis both directions
Executive Standard	MIL-STD-810G	Humidity	100% RH at 35c, 95%RH at 40°C

### Absolute Maximum Ratings

Supply Bias Voltage	± 10%V
RF INPUT POWER	27dBm
ESD sensitivity (HBm)	Class 0, passed 150V

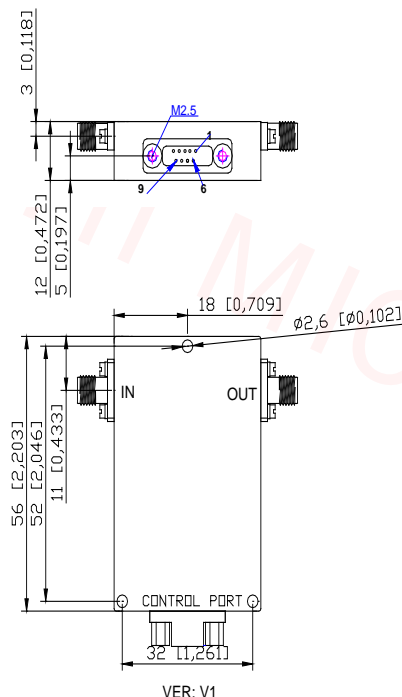


OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES



### Outline Drawing

All Dimensions in mm ( inches ) Tolerance ±0.25 ( 0.01 )



Control Voltage Input						Attenuation state
C6	C5	C4	C3	C2	C1	
0	0	0	0	0	0	Reference IL
0	0	0	0	0	1	1dB
0	0	0	0	1	0	2dB
0	0	0	1	0	0	4dB
0	0	1	0	0	0	8dB
0	1	0	0	0	0	16dB
1	0	0	0	0	0	32dB
1	1	1	1	1	1	63dB

#### MICRO-Dg Female Define

1	2	3	4	5	6	7	8	9
+12v	-12V	GND	C1	C2	C3	C4	C5	C6