

# MODEL HIDT80913H25

## 9-13GHz 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	9-13			GHz
Insertion Loss		2.5	3	dB
Attenuation Range	63			dB
Input VSWR		1.5	2.0	
Output VSWR		1.5	2.0	
Switch Speed		1		us
Attenuation Step	0.25			dB
Control Bit TTL	8			Bit
Attenuation Accuracy	± 10%			dB
Attenuation Flatness	0-15dB ± 0.5dB; 16-30dB ± 1.5dB; 31-63dB ± 2.5dB			dB
Input Max Power(no damage)			30	dBm
DC Power Supply	+12V@150mA, -12V @85mA			mA
Impedance	50			Ω
Input Output Connector	SMA-K			
Material	Aluminium\Gold Painting			
Weight	50g			
Package Sealing	Epoxy Sealing (Standard) Hermetically Seal(Optional)			

### Environmental Conditions

Operational Temperature	-45°C~+85°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	30dBm
ESD sensitivity (HBm)	Class 0, passed 150V

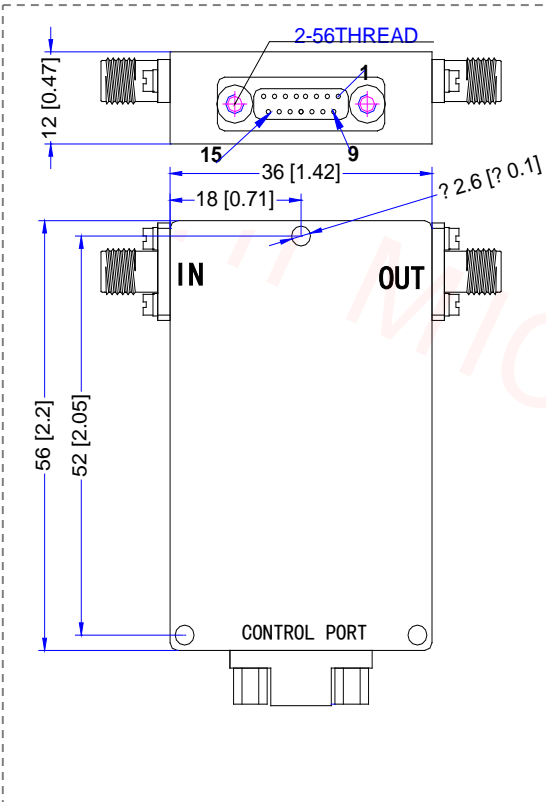


OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES



### Outline Drawing

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



Control Voltage Input								Attenuation state
C8	C7	C6	C5	C4	C3	C2	C1	
0	0	0	0	0	0	0	0	Reference IL
0	0	0	0	0	0	0	1	0.25dB
0	0	0	0	0	0	1	0	0.5dB
0	0	0	0	0	1	0	0	1dB
0	0	0	0	1	0	0	0	2dB
0	0	0	1	0	0	0	0	4dB
0	0	1	0	0	0	0	0	8dB
0	1	0	0	0	0	0	0	16dB
1	0	0	0	0	0	0	0	32dB
1	1	1	1	1	1	1	1	63dB

MICRO-D15 Female Define

1	2	3	4	5	6	7	8	9
+12v	-12V	GND	C1	C2	C3	C4	C5	C6
10	11	12	13	14	15			
NC	NC	NC	NC	NC	NC			