

VSA-063-06-4-UE-S

High Resolution Variable Signal Attenuator

General Description

VSA-063-06-4-UE-S High Resolution Variable Signal Attenuator is a highly accurate, bidirectional, 50 Ohm digitally controlled step attenuator. It provides calibrated attenuation from **50 to 6000 MHz with a very fine attenuation resolution of 0.5 dB**. It also offers a **typical attenuation accuracy less than 0.5 dB** over 63 dB of control range. The attenuators are easily programmable for fixed attenuation, swept attenuation ramps and fading profiles directly from either Ethernet or USB interfaces. VSA-063-06-4-UE-S is a **USB powered** test instrument with a power consumption less than 300 mW which eliminates the need for external DC power supply. It offers **four independently controlled channels** providing an **attenuation interval from 0 to 63 dB** as well as **more than 75 dB isolation between channels**. Its design maintains linear attenuation change per dB, even at the highest attenuation settings.

Features

- Reliable and repeatable solid state digital attenuation
- Simple control with USB and Ethernet interfaces
- Operates multiple devices directly from a PC or self-powered hub
- Easily portable USB powered device
- Option to create programmable attenuation ramp profiles for long DVT cycles
- Four independently programmable channels over a wide attenuation range up to 63 dB
- Fine attenuation resolution (0.5 dB)

Applications

- Wi-Fi, GSM, GPS, 3G, 4G, 5G, LTE, Microwave Radio Fading Simulators
- Engineering/Production Test Labs
- Automated Test Equipment (ATE)
- MIMO Test Setups

Table 1 General Specifications

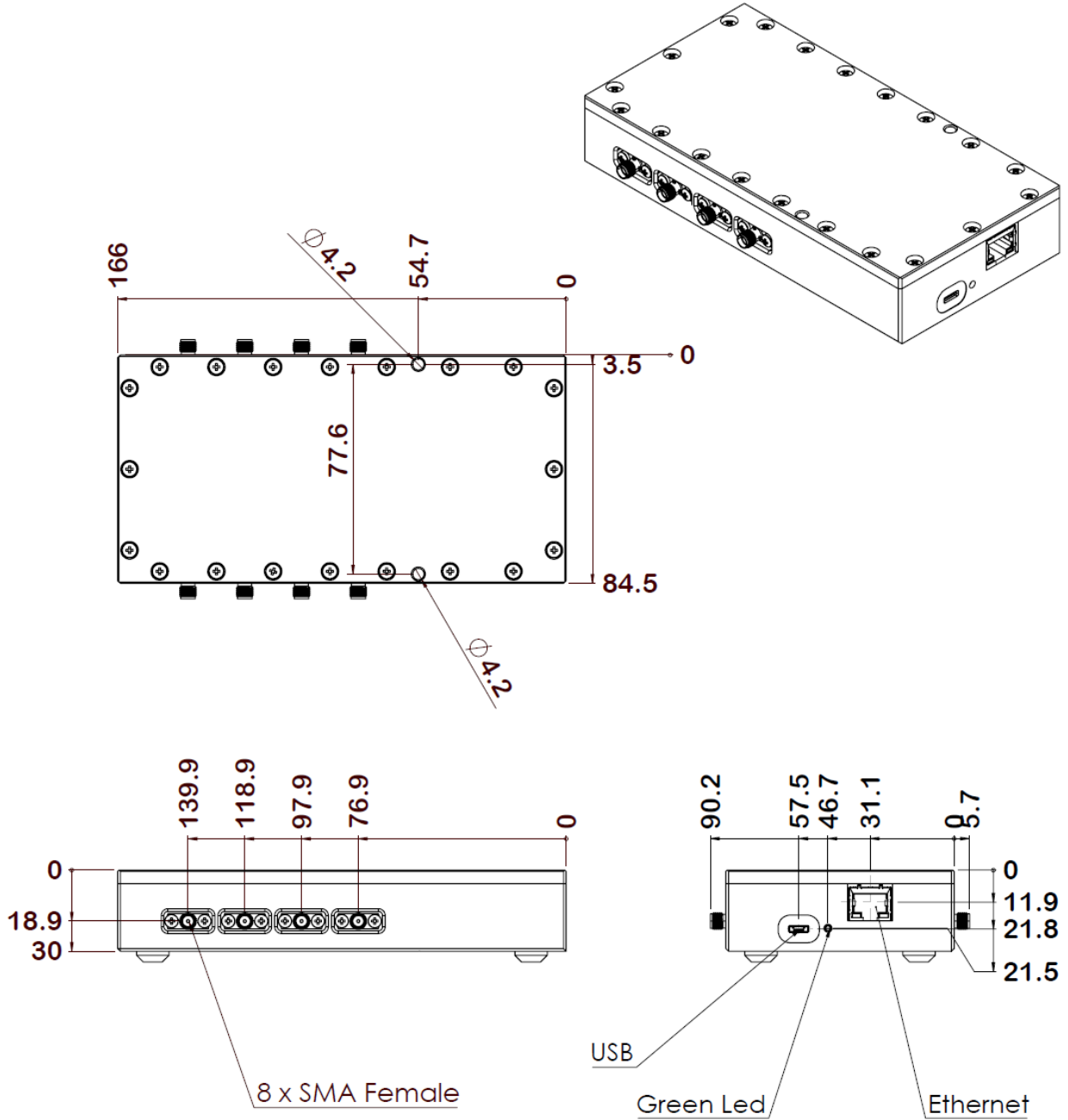
Parameter	Notes/Explanations	Value
Power	Via USB Connection	5V DC, 300 mA
Environment	Operating Temperature	b/w 0° & 50°
	Relative Humidity	< 95%
Physical Interfaces	Power	USB Micro
	Control	USB & Ethernet
	RF	SMA (f)
Mechanical	Dimensions (cm)	16.6 x 9.02 x 3
	Weight (kg)	0.92

System Specifications

Table 2 RF System Specifications

Parameter	Condition	Value			Unit
		Min.	Typ.	Max.	
Frequency Range	-	50	-	6000	MHz
Impedance	-	-	50	-	Ω
Attenuation Range	-	0	-	63	dB
Attenuation Resolution	-	-	0.5	-	dB
Attenuation Accuracy	b/w 0.5 & 20 dB	-	+/- 0.25	+/-0.75	dB
	b/w 20 & 40 dB	-	+/- 0.5	+/- 1	dB
	b/w 40 & 63 dB	-	+/- 0.6	+/- 1.25	dB
Insertion Loss	< 2.5 GHz	-	6.5	7.5	dB
	< 5 GHz	-	8	9	dB
	< 6 GHz	-	9	10	dB
VSWR	-	-	1.5:1	2:1	-
Isolation (In-Out)	-	75	80	-	dB
Isolation (b/w channels)	-	70	75	-	dB
Max. Input Power	-	-	-	+25	dBm
Input IP3	-	50	55	-	dBm
Switching Speed	-	-	180	200	nsec
Supply Voltage	-	4.75	5	5.25	V

Mechanical Specifications



All dimensions are in millimeters unless otherwise stated

Product Family

We offer a number of high resolution variable attenuators for all your needs. You can choose the suitable one for your needs checking the unique code for attenuation range, frequency and the number of channels.

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Attenuation Range	Frequency	Number of Channels
31.5 dB	6 GHz	4
63 dB	8 GHz	6
90 dB	13,5 GHz	8
		12
		16
		24
		48