

Performance Characteristics:

- Frequency band: 18~40GHz
- Insertion loss: 1.2 dB/dB/dB / 1.2 1.2 1.1 1.1 dB/dB / 1.6 dB
- Both measured: 2/3/4/5/6/7dB
- Input/output voltage standing wave ratio: 1.4/1.4
- Chip size: 0.6mm×0.6mm×0.1mm

Product Description:

The CW-AE1840 is a GaAs MMIC series equalizer chip covering the frequency range from 18GHz to 40GHz. Plug loss is a positive slope across the frequency range, all measure optional range 2/3/4/5/6/7 dB.

Electrical parameters: ($T_A=25^{\circ}\text{C}$)

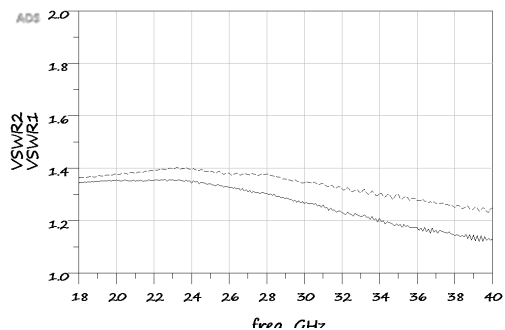
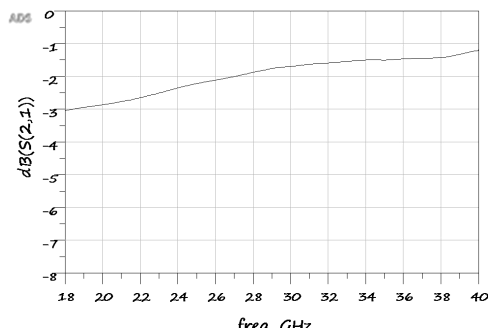
Indicators		Minimum	Typical value	Maximum	Units
Frequency range		18 ~ 40			GHz
Insertion loss	CW-AE1840-2	1.2	-	3.1	dB
	CW-AE1840-3	1.2	-	3.9	dB
	CW-AE1840-4	1.2	-	5.0	dB
	CW-AE1840-5	1.1	-	5.7	dB
	CW-AE1840-6	1.1	-	6.6	dB
	CW-AE1840-7	1.6	-	7.8	dB
Even measure	CW-AE1840-2	-	2	-	dB
	CW-AE1840-3	-	3	-	dB
	CW-AE1840-4	-	4	-	dB
	CW-AE1840-5	-	5	-	dB
	CW-AE1840-6	-	6	-	dB
	CW-AE1840-7	-	7	-	dB
Input voltage standing wave ratio		-	1.4	1.5	-
Output voltage standing wave ratio		-	1.4	1.5	-

Use limit parameters: (Exceeding any of the above maximum limits risks permanent damage.)

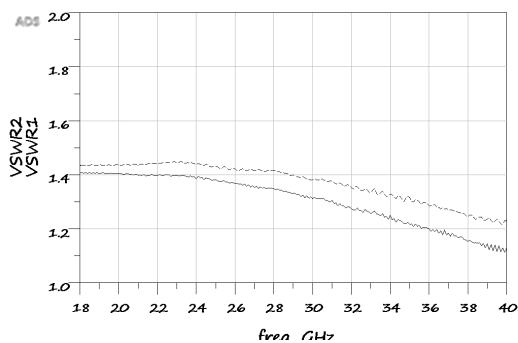
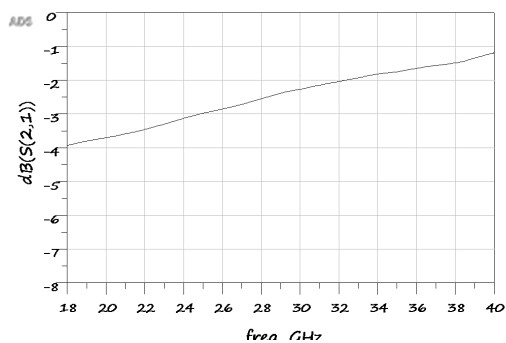
Input power	+30dBm
Storage temperature	-65°C~150°C
Service temperature	-55°C~125°C

Typical curve:

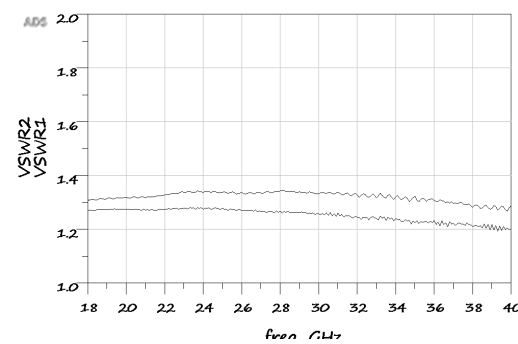
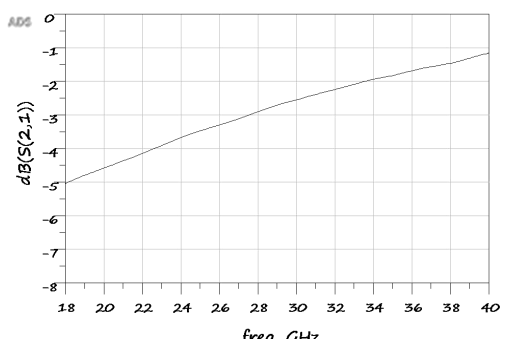
CW-AE1840-2



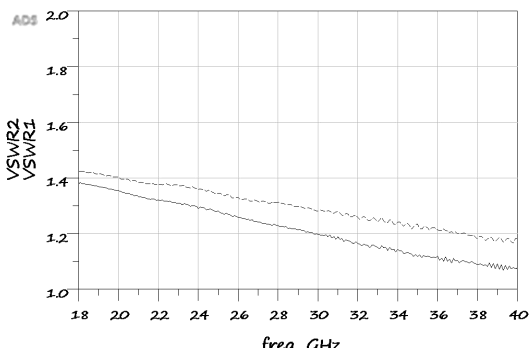
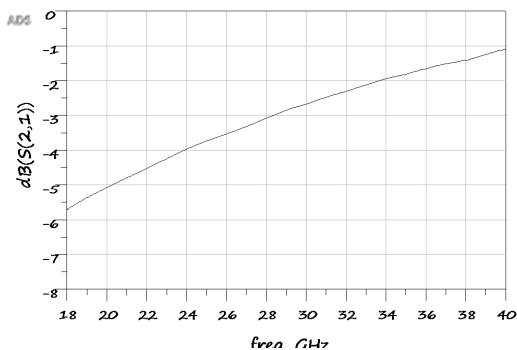
CW-AE1840-3



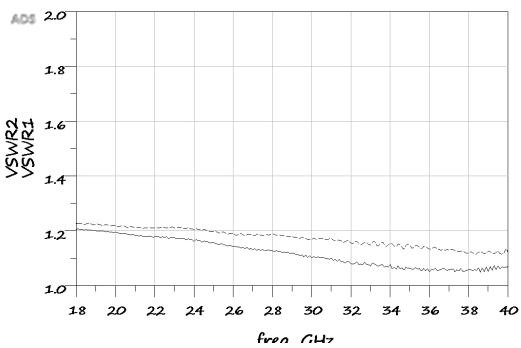
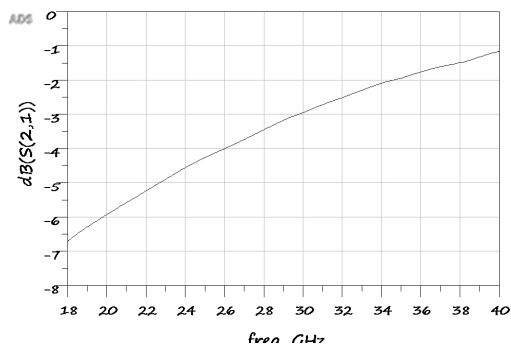
CW-AE1840-4



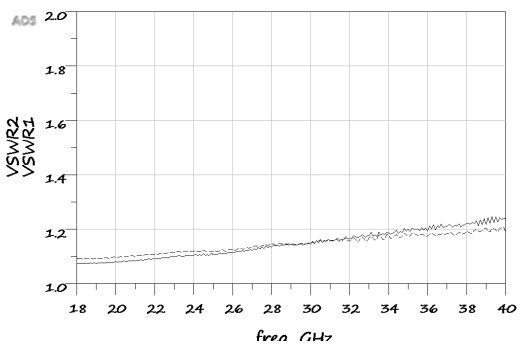
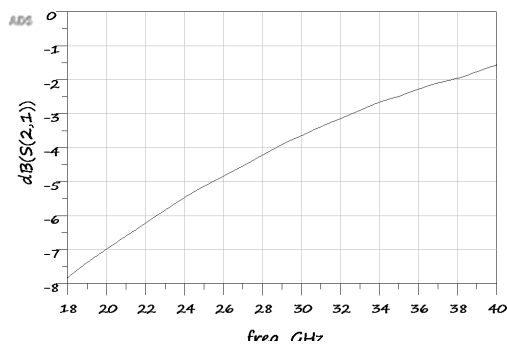
CW-AE1840-5



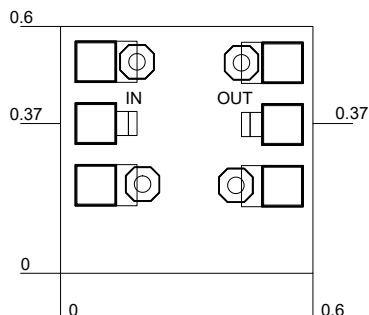
CW-AE1840-6



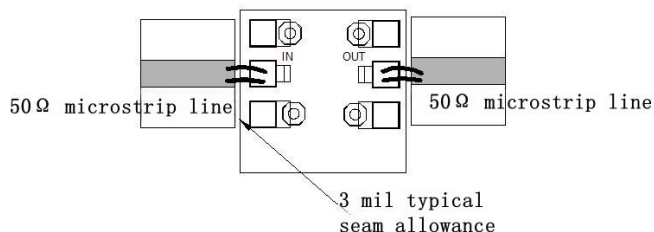
CW-AE1840-7



Size drawing: (unit mm)



Suggested assembly drawing:



Instructions:

Storage: The chip must be placed in a container with electrostatic protection and stored in a nitrogen environment.

Cleaning treatment: The bare chip must be operated and used in a purified environment. It is forbidden to use liquid cleaning agent to clean the chip.

Electrostatic protection: Strictly comply with the ESD protection requirements to avoid electrostatic damage to the components.

General operation: Use vacuum chuck or precision pointed tweezers to pick up the chip. Avoid touching the surface of the chip with tools or fingers during handling.

Mounting operation: The chip can be installed using AuSn solder eutectic welding or conductive adhesive bonding process. The mounting surface must be clean and flat.

Bonding operation: Input and output with 2 (recommended diameter of 25um gold wire) bonding wire, bonding wire length less than 250um is optimal. It is recommended to use the smallest possible ultrasonic energy. Bonding begins at the pressure point on the chip and ends at the package (or substrate).