



EQUL1P-4501 to 4510

RF Engineering & Custom Build

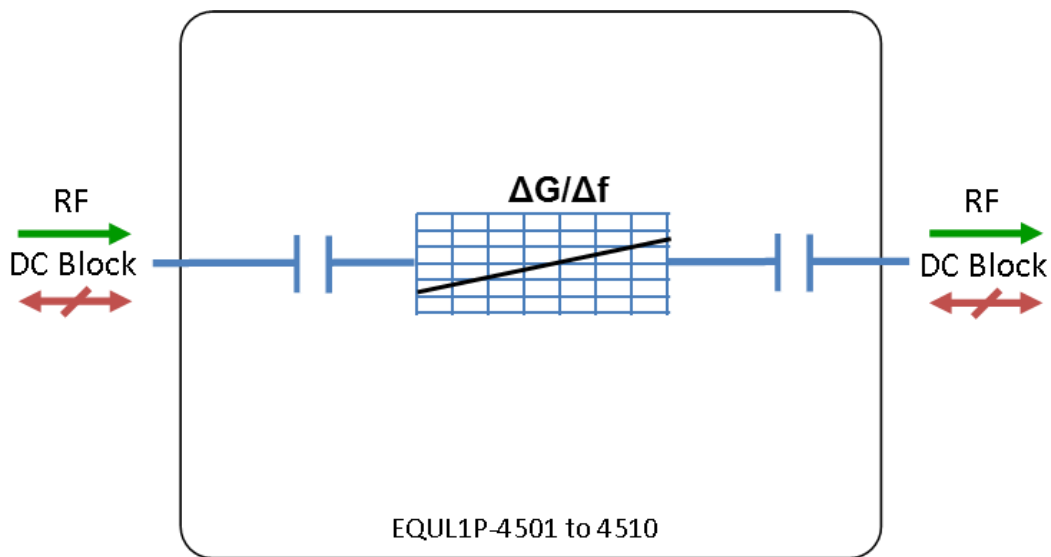
L-band Passive Equalisers



The 4501-4510 series are 50 ohm passive L-band positive slope equalisers available in 1dB slope increments over 1 to 10dB range. These are reciprocal devices with DC block between the two ports.

This component is available with the following RF connector options: 50 Ω ; N-type, BNC, and SMA.

Vector Diagram



RF Parameters

EQUL1P-4501-xxxx	S5S5	N5N5	B5B5
Frequency Range	850-2150 MHz	850-2150 MHz	850-2150 MHz
RF Connectors	50 Ω SMA	50 Ω N-Type	50 Ω BNC
Positive Slope	1 \pm 0.3dB	1 \pm 0.3dB	1 \pm 0.3dB
Insertion Loss*	2.0 dB typ	2.0 dB typ	2.0 dB typ
	3.5 dB max	3.5 dB max	3.5 dB max
Return Loss	16 dB typ	16 dB typ	14 dB typ
	12 dB min	12 dB min	10 dB min

* The quoted insertion loss is the mean value

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L-band Passive Equalisers

RF Parameters

EQUAL1P-4502-xxxx	S5S5	N5N5	B5B5
Frequency Range	850-2150 MHz	850-2150 MHz	850-2150 MHz
RF Connectors	50Ω SMA	50Ω N-Type	50Ω BNC
Positive Slope	2±0.4dB	2±0.4dB	2±0.4dB
Insertion Loss*	2.0 dB typ	2.0 dB typ	2.0 dB typ
	3.0 dB max	3.0 dB max	3.0 dB max
Return Loss	16 dB typ	16 dB typ	14 dB typ
	12 dB min	12 dB min	10 dB min

RF Parameters

EQUAL1P-4503-xxxx	S5S5	N5N5	B5B5
Frequency Range	850-2150 MHz	850-2150 MHz	850-2150 MHz
RF Connectors	50Ω SMA	50Ω N-Type	50Ω BNC
Positive Slope	3±0.5dB	3±0.5dB	3±0.5dB
Insertion Loss*	2.0 dB typ	2.0 dB typ	2.0 dB typ
	3.0 dB max	3.0 dB max	3.0 dB max
Return Loss	15 dB typ	15 dB typ	13 dB typ
	12 dB min	12 dB min	10 dB min

RF Parameters

EQUAL1P-4504-xxxx	S5S5	N5N5	B5B5
Frequency Range	850-2150 MHz	850-2150 MHz	850-2150 MHz
RF Connectors	50Ω SMA	50Ω N-Type	50Ω BNC
Positive Slope	4±0.6dB	4±0.6dB	4±0.6dB
Insertion Loss*	3.0 dB typ	3.0 dB typ	3.0 dB typ
	5.0 dB max	5.0 dB max	5.0 dB max
Return Loss	15 dB typ	15 dB typ	13 dB typ
	12 dB min	12 dB min	10 dB min

* The quoted insertion loss is the mean value

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L-band Passive Equalisers

RF Parameters

EQUALP-4505-xxxx	S5S5	N5N5	B5B5
Frequency Range	850-2150 MHz	850-2150 MHz	850-2150 MHz
RF Connectors	50Ω SMA	50Ω N-Type	50Ω BNC
Positive Slope	5±0.8dB	5±0.8dB	5±0.8dB
Insertion Loss*	4.5 dB typ	4.5 dB typ	4.5 dB typ
	6.0 dB max	6.0 dB max	6.0 dB max
Return Loss	16 dB typ	18 dB typ	16 dB typ
	12 dB min	14 dB min	12 dB min

RF Parameters

EQUALP-4506-xxxx	S5S5	N5N5	B5B5
Frequency Range	850-2150 MHz	850-2150 MHz	850-2150 MHz
RF Connectors	50Ω SMA	50Ω N-Type	50Ω BNC
Positive Slope	6±1.0dB	6±1.0dB	6±1.0dB
Insertion Loss*	5.0 dB typ	5.0 dB typ	5.0 dB typ
	7.0 dB max	7.0 dB max	7.0 dB max
Return Loss	18 dB typ	18 dB typ	16 dB typ
	14 dB min	14 dB min	12 dB min

RF Parameters

EQUALP-4507-xxxx	S5S5	N5N5	B5B5
Frequency Range	850-2150 MHz	850-2150 MHz	850-2150 MHz
RF Connectors	50Ω SMA	50Ω N-Type	50Ω BNC
Positive Slope	7±1.0dB	7±1.0dB	7±1.0dB
Insertion Loss*	5.5 dB typ	5.5 dB typ	5.5 dB typ
	7.5 dB max	7.5 dB max	7.5 dB max
Return Loss	18 dB typ	18 dB typ	18 dB typ
	14 dB min	14 dB min	12 dB min

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L-band Passive Equalisers

RF Parameters

EQUALP-4508-xxxx	S5S5	N5N5	B5B5
Frequency Range	850-2150 MHz	850-2150 MHz	850-2150 MHz
RF Connectors	50Ω SMA	50Ω N-Type	50Ω BNC
Positive Slope	8±1.0dB	8±1.0dB	8±1.0dB
Insertion Loss*	5.5dB typ	5.5 dB typ	5.5 dB typ
	8.0 dB max	8.0 dB max	8.0 dB max
Return Loss	18 dB typ	18 dB typ	18 dB typ
	15 dB min	15 dB min	13 dB min

RF Parameters

EQUALP-4509-xxxx	S5S5	N5N5	B5B5
Frequency Range	850-2150 MHz	850-2150 MHz	850-2150 MHz
RF Connectors	50Ω SMA	50Ω N-Type	50Ω BNC
Positive Slope	9±1.0dB	9±1.0dB	9±1.0dB
Insertion Loss	7.0 dB typ	7.0 dB typ	7.0 dB typ
	8.5 dB max	8.5 dB max	8.5 dB max
Return Loss	20 dB typ	20 dB typ	18 dB typ
	15 dB min	15 dB min	13 dB min

RF Parameters

EQUALP-4510-xxxx	S5S5	N5N5	B5B5
Frequency Range	850-2150 MHz	850-2150 MHz	850-2150 MHz
RF Connectors	50Ω SMA	50Ω N-Type	50Ω BNC
Positive Slope	10±1.0dB	10±1.0dB	10±1.0dB
Insertion Loss	7.0 dB typ	7.0 dB typ	7.0 dB typ
	9.0 dB max	9.0 dB max	9.0 dB max
Return Loss	20 dB typ	20 dB typ	18 dB typ
	15 dB min	15 dB min	13 dB min

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L-band Passive Equalisers

Environmental

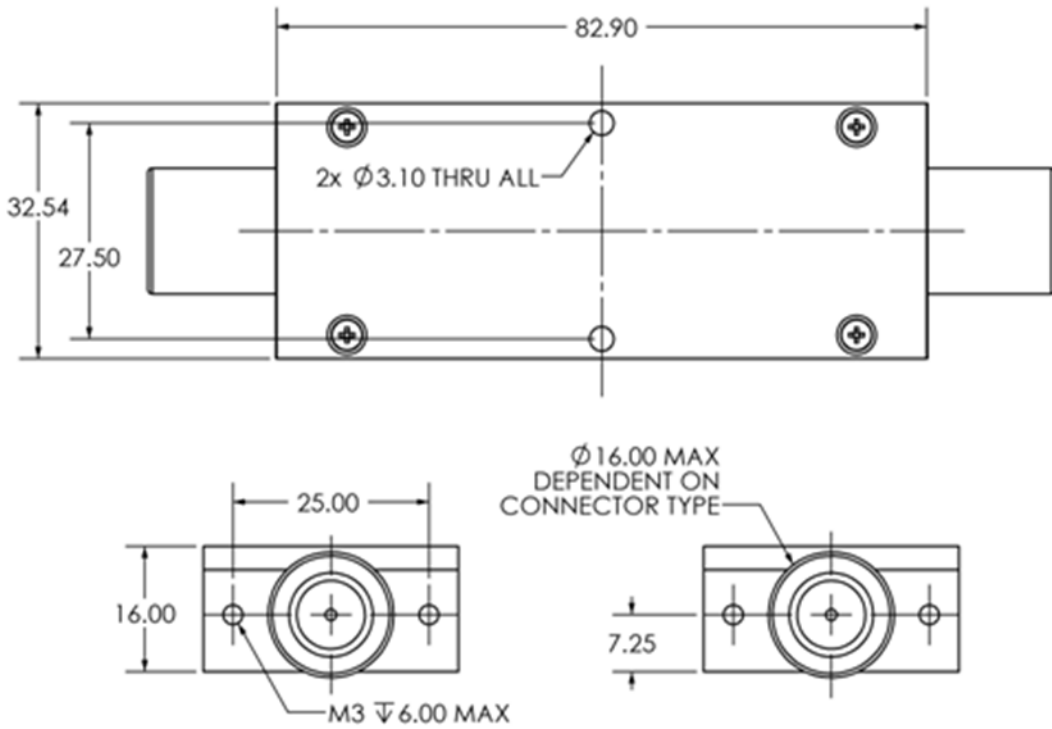
Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +75°C
Location	Indoor use Only
Humidity	85% non-condensing
Altitude	10,000 feet

Max Operating Parameters

Input RF Power	+16 dBm (40mW)
DC Voltage	35V on any RF port
DC Current	500mA
DC Consumption	100mA Max, 80mA typical

! Operation beyond these limits may cause instantaneous and permanent damage.

Mechanical Dimensions



ETL's L-band passive frequency equalisers range

Model Number	Positive Slope Range	RF Connector Impedance	Other features
EQUALP-4501 to 4510	1 to 10dB	50Ω	DC block
EQUALP-4511 to 4520	1 to 10dB	75Ω	DC block
EQUALP-4521 to 4530	1 to 10dB	50Ω	DC and 10MHz Pass
EQUALP-4531 to 4540	1 to 10dB	75Ω	DC and 10MHz Pass

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