

## L-band Multiplexers



The 4100-4111 Series of L-band multiplexers all offer 10MHz pass and DC pass or block functionality.

This component is available with the following RF connector options: 50  $\Omega$  SMA, N-type, BNC and 75  $\Omega$  BNC or F-type.

All L-band multiplexers are supplied in EMC shielded non hermetic housings with mounting provisions to facilitate mounting (either onto a base, front or rear panel). There are various functional configurations which include DC, 10MHz and L-band multiplexing on to the common port with further choices on DC pass or blocked RF ports.

**MUXL1P-4100** multiplexes L-band (850 to 2150MHz) and 10MHz through the common port, with DC block on all ports.

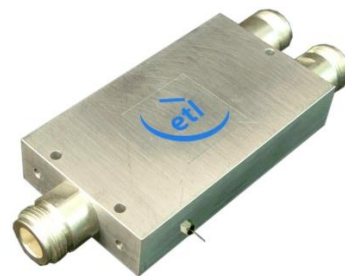
**MUXL1P-4101** multiplexes L-band (850 to 2150MHz) and 10MHz through the common port, with the L-band and common port DC linked, and DC block on the 10MHz port.

**MUXL1P-4102** multiplexes L-band (850 to 2150MHz), 10MHz and DC through the common port, with DC block on the 10MHz port.

**MUXL1P-4103** multiplexes L-band (850 to 2150MHz), 10MHz and DC through the common port, with DC block on the 10MHz and L-band ports.

**MUXL1P-4104** multiplexes L-band (850 to 2150MHz) and 10MHz through the common port, with DC injection on the L-band port and DC block on the 10MHz and common port.

**MUXL1P-4111** multiplexes L-band (850 to 2150MHz), 10MHz and DC through the common port, with DC block on the L-band and 10MHz port. DC rated up to 7A max.



L-band & 10MHz Multiplexers: Performance Table

Model Number	Frequency (MHz)	COMMON PORT		L-BAND PORT		10MHz Insertion Loss	
		Insertion Loss (dB) Typ. Max	Return Loss (dB) Typ. Max	Return Loss (dB) Typ. Max	Typ. (dB)	Max (dB)	

### MUXL1P-4100

MUXL1P-4100-S5S5	850 -2150	0.35	0.7	20	15	20	15	0.3	0.8
MUXL1P-4100-N5N5	850 -2150	0.35	0.8	18	14	18	14	0.4	0.8
MUXL1P-4100-B5B5	850 -2150	0.4	0.8	16	12	16	12	0.5	0.8
MUXL1P-4100-B7B7	850 -2150	0.5	1.0	14	12	14	12	0.5	1.0
MUXL1P-4100-F7F7	850 -2150	0.7	1.2	12	10	12	10	0.6	1.2

### MUXL1P-4101

MUXL1P-4101-S5S5	850 -2150	0.35	0.7	20	15	20	15	0.3	0.8
MUXL1P-4101-N5N5	850 -2150	0.35	0.8	18	14	18	14	0.4	0.8
MUXL1P-4101-B5B5	850 -2150	0.4	0.8	16	12	16	12	0.5	0.8
MUXL1P-4101-B7B7	850 -2150	0.5	1.0	14	12	14	12	0.5	1.0
MUXL1P-4101-F7F7	850 -2150	0.7	1.2	12	10	12	10	0.6	1.2

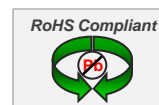
### MUXL1P-4102

MUXL1P-4102-S5S5	850 -2150	0.2	0.6	20	15	20	15	0.3	0.8
MUXL1P-4102-N5N5	850 -2150	0.25	0.6	18	14	18	14	0.4	0.8
MUXL1P-4102-B5B5	850 -2150	0.35	0.7	16	12	16	12	0.5	0.8
MUXL1P-4102-B7B7	850 -2150	0.35	0.7	14	12	14	12	0.5	1.0
MUXL1P-4102-F7F7	850 -2150	0.5	1.0	12	10	12	10	0.6	1.2



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### L-band & 10MHz Multiplexers: Performance Table

Model Number	Frequency (MHz)	COMMON PORT				L-BAND PORT		10MHz Insertion Loss	
		Insertion Loss (dB) Typ. Max		Return Loss (dB) Typ. Max		Return Loss (dB) Typ. Max		Typ. (dB)	Max (dB)

### MUXL1P-4103

MUXL1P-4103-S5S5	850 -2150	0.2	0.6	20	15	20	15	0.3	0.8
MUXL1P-4103-N5N5	850 -2150	0.25	0.6	18	14	18	14	0.4	0.8
MUXL1P-4103-B5B5	850 -2150	0.35	0.7	16	12	16	12	0.5	0.8
MUXL1P-4103-B7B7	850 -2150	0.35	0.7	14	12	14	12	0.5	1.0
MUXL1P-4103-F7F7	850 -2150	0.5	1.0	12	10	12	10	0.6	1.2

### MUXL1P-4104

MUXL1P-4104-S5S5	850 -2150	0.2	0.6	20	15	20	15	0.3	0.8
MUXL1P-4104-N5N5	850 -2150	0.25	0.6	18	14	18	14	0.4	0.8
MUXL1P-4104-B5B5	850 -2150	0.35	0.7	16	12	16	12	0.5	0.8
MUXL1P-4104-B7B7	850 -2150	0.35	0.7	14	12	14	12	0.5	1.0
MUXL1P-4104-F7F7	850 -2150	0.5	1.0	12	10	12	10	0.6	1.2

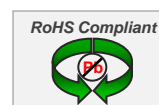
### MUXL1P-4111

MUXL1P-4111-S5S5	850 -2150	0.5	1.0	18	14	20	15	0.5	1.0
MUXL1P-4111-N5N5	850 -2150	0.6	1.0	16	12	18	14	0.5	1.0
MUXL1P-4111-B5B5	850 -2150	0.6	1.0	14	12	16	12	0.6	1.2
MUXL1P-4111-B7B7	850 -2150	0.7	1.2	12	10	14	12	0.7	1.2
MUXL1P-4111-F7F7	850 -2150	0.8	1.2	10	8	12	10	0.9	1.5



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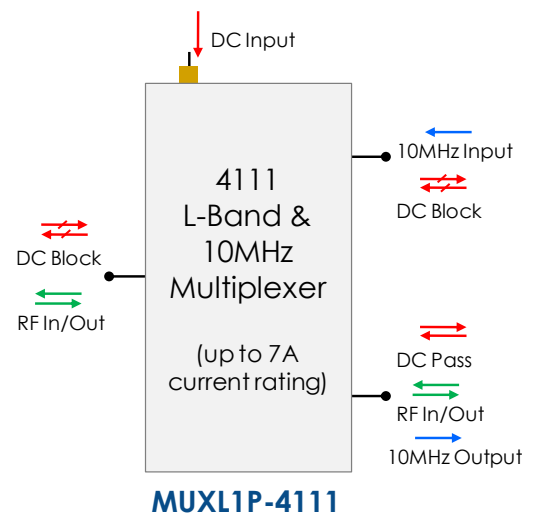
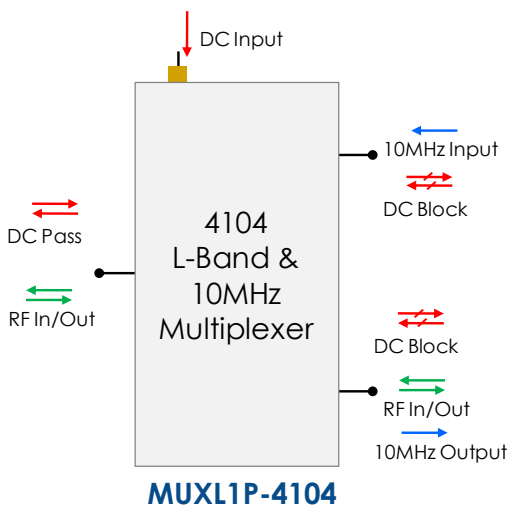
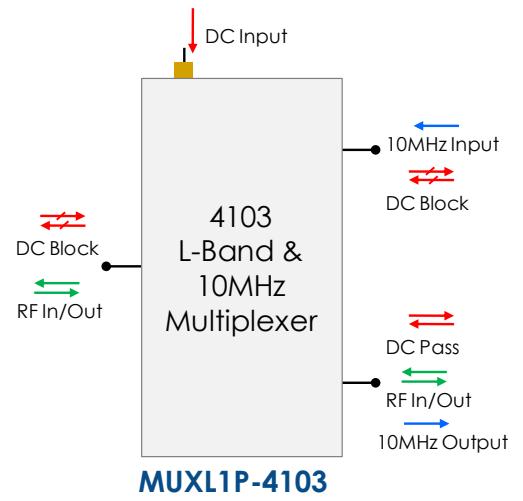
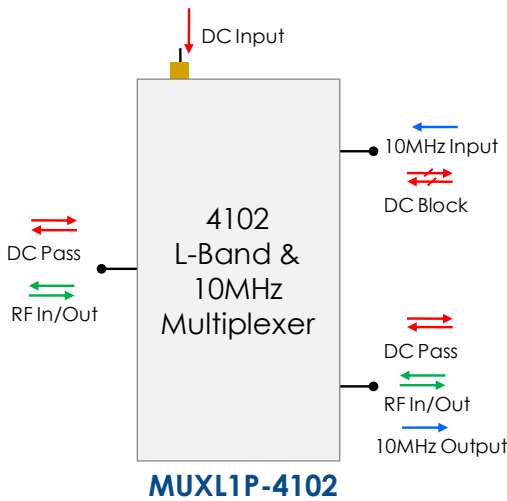
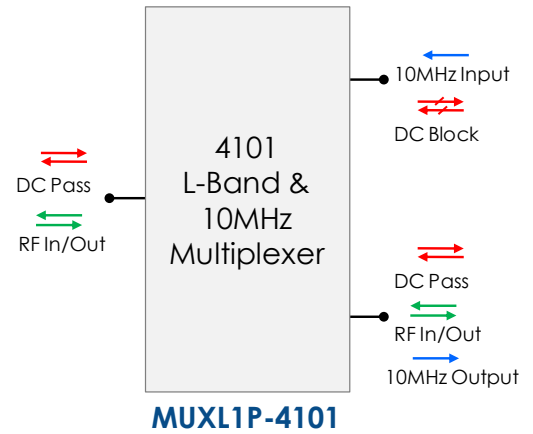
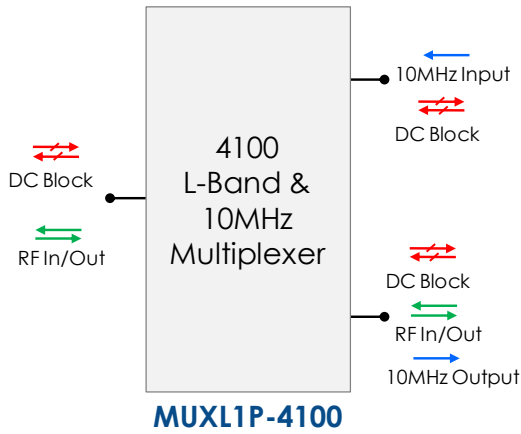
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# MUXL1P-4100 to 4111



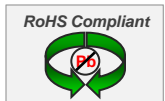
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## Vector diagrams



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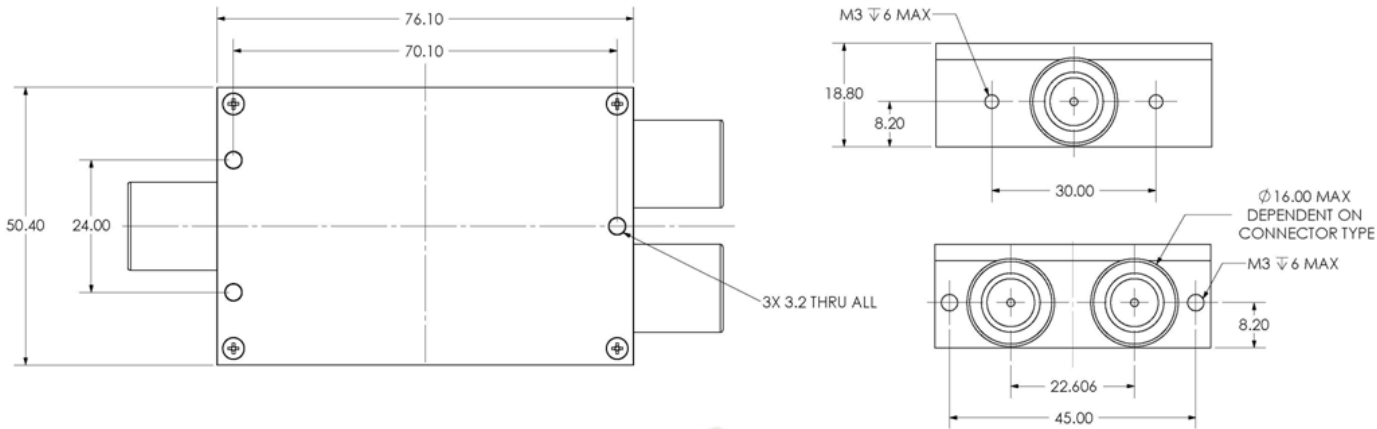
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# MUXL1P-4100 to 4111

L-band Multiplexers



## Physical dimensions



Maximum acceptable operating parameters for reliable and safe operation

Parameter	Value	Comment
Input RF power	5W	Max total RF power
10MHz input	5W	
DC Input	48V	Any RF port
Current	*1A	Any RF port
Operating temperature	20 C	Indoor use only
Storage Temperature	-20 C to +85 C	
Humidity	85%	Non-condensing

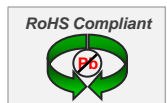
MUXL1P-411 is rated 7Amp if N-type connectors are used, 5Amp if BNC and 3 Amp if SMA or F-type connectors are used.

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



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