

## ISL & ICL Series

L-Band, Active & Passive Splitter/ Combiner Units, Rack Mounted.



### High Grade Splitter Products;

<b>ISL04A/P</b>	Active or passive, 4-way
<b>ISL08A/P</b>	Active or passive, 8-way
<b>ISL12P</b>	Passive, 12-way
<b>ISL16P</b>	Passive, 16-way

### High Grade Combiner Products;

<b>ICL04P</b>	Passive, 4-way
<b>ICL08P</b>	Passive, 8-way
<b>ICL12P</b>	Passive, 12-way
<b>ICL16P</b>	Passive, 16-way

### High Grade Splitter & Combiner Products;

<b>ISCL04P</b>	Passive, 4-way splitter and 4-way combiner in a single chassis
<b>ISCL08P</b>	Passive, 8-way splitter and 8-way combiner in a single chassis

For splitting/ combining at other frequencies, please contact the factory.

For equivalent units with full user interface, remote control and digital attenuation please see ISLH & ICLH series datasheets.







For equivalent remote mount units, please see PSL and PCL series datasheet.

The 19 inch, 1U rack mounted **ISL series** of L-Band Splitter units and **ICL series** of L-Band Combiner units from Peak Communications are designed to provide high quality signal splitting/ combining, primarily for satellite Earth station applications.

The **ISL/ ICL series** units are mains powered and are constructed of high grade components to give the ultimate gain flatness, noise figure and return loss performance. Both active and passive versions are available, with optional internal amplifier redundancy for active versions.

These units are offered with a range of optional enhancements and Peak are happy to customise the units to meet specific needs (please contact the Peak team directly to discuss any non-standard requirements).

### Peak Features

-  High gain flatness and low Noise Figure
-  Compact with up to 16-way in a single 1RU chassis
-  Amplifier low current alarm monitoring
-  Manually Variable Attenuator options for local control of Gain
-  Optional monitoring, dual PSU's, redundant amplifiers, BUC/ LNB power, referencing etc
-  Customising available



## ISL, ICL series – Typical Specification

### Active RF Splitter Performance (ISLxxA)

Ways (xx) 04, 08-way  
 Notes: spare ports will require termination (see option 5). For increased number of ways (up to 16-way) please consult the factory for performance.

Frequency	850-2150MHz
Gain	0dB $\pm$ 1dB nom.
Gain Flatness	$\pm$ 0.75dB across full band $\pm$ 0.25dB across any 40MHz
TOIP	+12dBm
1dB Input GCP	+1.5dBm
Note: for higher GCP options please contact the factory	
Noise Figure	6dB
Isolation	25dB typ. (between any two output ports)
Input Return Loss	14dB
Output Return Loss	20dB

### Passive RF Splitter/ Combiner Performance (IS/CLxxP)

Ways (xx)	04, 08, 12 & 16-way available
Frequency	850-2150MHz
Insertion Loss	8 to 14dB $\pm$ 1dB nom. (dependent upon number of ways)
Gain Flatness	$\pm$ 0.25dB across full band $\pm$ 0.1dB across any 40MHz
RF Input power	0dBm max
Isolation	25dB typ. (between any two output ports)
Input Return Loss	14dB
Output Return Loss	20dB

### RF Interfaces

Connection	SMA (f), 50 $\Omega$
Option 1a	BNC (f), 50 $\Omega$
Option 1b	N-Type (f), 50 $\Omega$ (up to 8-way only)
Option 1c	BNC (f), 75 $\Omega$ (up to 8-way only)

### Splitter (Input)/ Combiner (Output) 'Monitor' (Option 2a, 2b)

Connected directly to front panel (Option 2a) or rear panel (Option 2b) to provide an appropriately terminated monitor port.  
 Level -20dBc  $\pm$ 3dB

Note: connection type and impedance offered will be identical to the main rear panel interfaces, unless otherwise requested.

### Splitter Output 'Monitor' (Option 2c)

One splitter output connected directly to front panel to provide an appropriately terminated monitor port.

Note: connection type, impedance and level offered will be identical to the main rear panel interfaces, unless otherwise requested.

### BUC/ BDC/ LNB Powering (Option 3a)

Provides power to BUC via L-Band output of Combiner (Tx systems) or to BDC/ LNB via input of Splitter (Rx systems).  
 Voltage +17 to +24VDC (factory settable)  
 Current 500mA typical

Note: for other power connection, power or level configurations, please consult the factory. This option degrades gain flatness across the full band performance by approximately  $\pm$ 0.25dB.

### BUC/ BDC/ LNB external referencing (Option 3b)

Provides external reference pass-through to BUC via output of Combiner (Tx systems) or to BDC/ LNB via input of Splitter (Rx systems).

#### External reference input:

Frequency	10MHz (5MHz factory settable)
Level	0dBm $\pm$ 3dB nom
Connector	BNC (f), 50 $\Omega$ m

Note: for other external reference connections, level configurations or for internal automatic 'back-up' reference generation, please consult the factory.

### Redundant Amplifiers (Option 4)

Provides internal 1+1 redundancy for 'active' splitter/ combiner amplifiers

### Variable L-Band Attenuation (Option 10)

Attenuation range	30dB
Control	Local, continuously variable from front panel

Note: attenuator typically fitted to common input (splitter) or output (combiner).

### Mechanical

Width	19", standard rack mount
Height	1U (1.75")
Depth	200 to 400mm (option dependent), plus connectors
Construction	Aluminium chassis
Weight	Approx. 2kgs (4.4lbs)

### Environmental

Operating temp	-10 $^{\circ}$ C to +50 $^{\circ}$ C
EMC	EN55022 part B & EN50082-1
Safety	EN60950

### Power supply

Voltage	90-264VAC
Frequency	47-63Hz
Power	30 Watts max.
Redundancy (Option 7)	Provides a redundant power supply configuration with separate prime power inputs

### Control System Interface

Discrete 'alarms interface'	PSU fail Amplifier current detection
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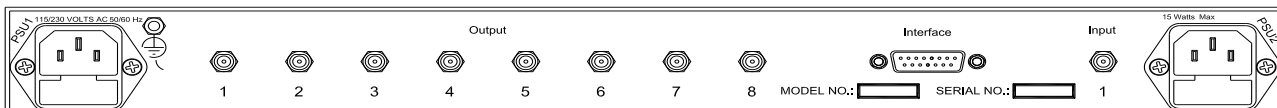
### Options

- 1a) BNC (f), 50 $\Omega$  connections
- 1b) N-Type (f), 50 $\Omega$  connections (8-way max)
- 1c) BNC (f), 75 $\Omega$  connections (8-way max)
- 2a) Splitter (input)/ Combiner (output) front panel monitor port
- 2b) Splitter (input)/ Combiner (output) rear panel monitor port
- 2c) Splitter output front panel monitor port
- 3a) BUC/ BDC/ LNB powering
- 3b) BUC/ BDC/ LNB external referencing
- 4) Redundant amplifiers (active versions only)
- 5) Spare port terminations.
- 7) Redundant power supplies
- 10) Manual Variable Attenuator, 30dB at L-Band

Note: the addition of options can modify the typical specification, for details please consult the factory



### Rear Panel View



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. ISL,ICL-301111.

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