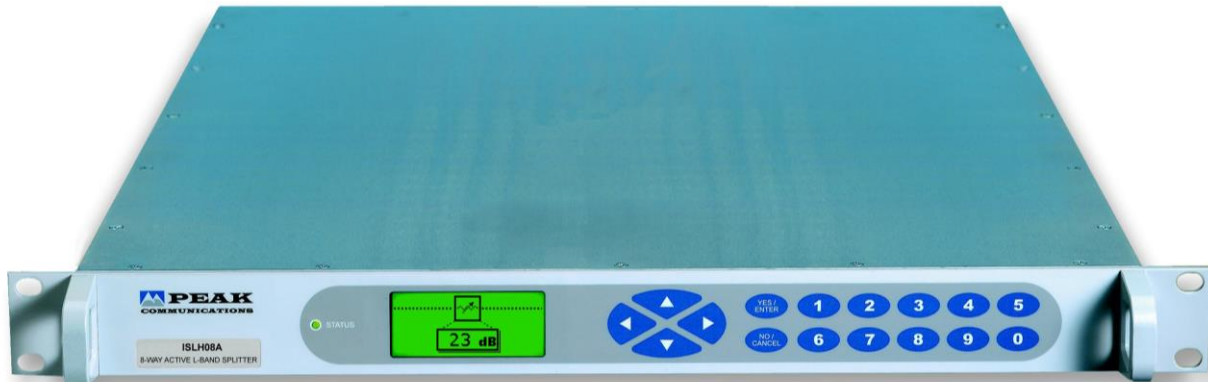


ISIH/ LH /RH & ICIH/ LH Series

Reference/ IF/ L-Band/ SHF, Active & Passive Splitter/ Combiner Units, rack mounted with user interface



High Grade Splitter Products;

| | |
|------------------|--------------------------------------|
| ISLH02A | L-Band, active, 2-way |
| ISLH04A/P | L-Band, active or passive, 4-way |
| I4SLH04P | L-Band, passive, quad-channel, 4-way |
| ISLH08A/P | L-Band, active or passive, 8-way |
| ISLH12A/P | L-Band, active or passive, 12-way |
| ISLH16A/P | L-Band, active or passive, 16-way |
| ISLH24A/P | L-Band, active or passive, 24-way |
| ISLH32A/P | L-Band, active or passive, 32-way |
| ISLH64A/P | L-Band, active or passive, 64-way |

High Grade Combiner Products;

| | |
|------------------|--------------------------------------|
| ICLH02A | L-Band, active, 2-way |
| ICLH04A/P | L-Band, active or passive, 4-way |
| I4SLH04P | L-Band, passive, quad-channel, 4-way |
| ICLH08A/P | L-Band, active or passive, 8-way |
| ICLH12A/P | L-Band, active or passive, 12-way |
| ICLH16A/P | L-Band, active or passive, 16-way |
| ICLH24A/P | L-Band, active or passive, 24-way |
| ICLH32A/P | L-Band, active or passive, 32-way |
| ICLH64A/P | L-Band, active or passive, 64-way |

Other multi-channel combinations available, please consult the factory.

For IF (70/ 140MHz) versions of the above please state ISIH04, ICIH04 etc

For reference (10MHz) versions of the above splitters please state ISRH04 etc

High Grade Splitter & Combiner Products;

| | |
|-----------------|--|
| ISCLH02A | L-Band, active, 2-way splitter and 2-way combiner in a single chassis |
| ISCLH04A | L-Band, active, 4-way splitter and 4-way combiner in a single chassis |
| ISCLH08A | L-Band, active, 8-way splitter and 8-way combiner in a single chassis |
| ISCLH04P | L-Band, passive, 4-way splitter and 4-way combiner in a single chassis |
| ISCLH08P | L-Band, passive, 8-way splitter and 8-way combiner in a single chassis |

For splitting/ combining at other frequencies, including SHF-Bands, please contact the factory.

For equivalent units with basic user interface, please see ISL & ICL series datasheets.






For equivalent remote mount units, please contact the factory.

The 19-inch, 1U rack mounted **ISIH/LH/RH series** of reference/ IF/ L-Band splitter units and **ICIH/LH series** of IF/ L-Band combiner units from Peak Communications are designed to provide high quality signal splitting/ combining, primarily for satellite Earth station applications.

The **ISIH/LH/RH & ICIH/LH 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.

Peak is happy to customise the units to meet specific needs (including SHF versions) so 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
-  Electronically variable attenuator options for both local & remote control of gain
-  Optional monitoring, dual PSU's, redundant amp's, BUC/ LNB power, referencing, DC blocking

Typical Specification

Active Reference/ IF/ L-Band Splitter Performance (ISI/LH/RXxxA)

| | |
|-----------|---|
| Ways (xx) | 02, 04, 08, 12-way available in 1RU 16, 24-way available in 2RU 32, 64-way available in 3RU |
|-----------|---|

Notes; spare ports will require termination (see option 5). For 12-way and above please consult the factory for performance.

| | |
|----------------------|--|
| Frequency | |
| Reference (ISRHxxA); | 10MHz |
| IF (ISIHxxA series); | 50-180MHz |
| L-Band (ISLHxxA); | 850-2150MHz |
| Gain | 0dB \pm 1dB nom. |
| Gain flatness | \pm 0.75dB across full band (\pm 1.5dB for 32, 64-way) \pm 0.25dB across any 40MHz |
| TOIP | +12dBm |
| 1dB input GCP | +1.5dBm |
| Noise figure | 6dB |
| Isolation | 22 to 25dB typ. (between any two output ports) |
| Input return loss | 14dB |
| Output return loss | 20dB |

Active IF/ L-Band Combiner Performance (ICI/LHxxA)

As above unless stated below;

| | |
|--------------------|---|
| Noise figure | 20dB |
| Isolation | 22 to 25dB typ. (between any two input ports) |
| Input return loss | 20dB |
| Output return loss | 14dB |

Passive Reference/ IF/ L-Band Splitter/ Combiner Performance (ISI/LRHxxP & ICI/LxxP)

| | |
|-----------|---|
| Ways (xx) | 04, 08, 12, 16-way available in 1RU chassis 24-way available in 2RU 32, 64-way available in 3RU |
|-----------|---|

| | |
|----------------------|---|
| Frequency | |
| Reference (ISRHxxA); | 10MHz |
| IF (IS/CIHxxP); | 50-180MHz |
| L-Band (IS/CLHxxP); | 850-2150MHz |
| Insertion loss | 8 to 16dB \pm 1dB nom. (dependent upon number of ways) |
| Gain flatness | \pm 0.25dB across full L-Band \pm 0.1dB across any 40MHz |
| RF input power | 1W max |
| Isolation | 25dB typ. (between any two output ports) |
| Input return loss | 14dB |
| Output return loss | 20dB |

Interface Connections

| | |
|----------------|-------------------------|
| Reference/ IF; | BNC (f), 50 Ω |
| L-Band; | SMA (f), 50 Ω |
| Option 1a; | BNC (f), 50 Ω |
| Option 1b; | N-Type (f), 50 Ω |
| Option 1c/ 1d; | BNC (f), 75 Ω |

Note; can increase chassis size; up to 8-way in 1RU, 16-way in 2RU etc.

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 combiner L-Band output (Tx systems) or to BDC/ LNB via splitter L-Band input (Rx systems).

| | |
|---------|----------------------------------|
| Voltage | +17 to +24VDC (factory settable) |
| Current | 500mA typical |
| Control | On/ off switching via rear panel |

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 to BUC via combiner L-Band output (Tx systems) or to BDC/ LNB via splitter L-Band input (Rx systems).

External reference input;

| | |
|-----------|-------------------------------|
| Frequency | 10MHz (5MHz factory settable) |
| Level | 0dBm \pm 3dB nom |
| Connector | SMA (f), 50 Ω m |

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

DC & 10MHz pass-through for BUC/ BDC/ LNB Powering (Option 3c, d)

Option 3c; provides DC power and 10MHz reference pass-through to BUC via combiner channel 1 input to common output (Tx systems) or to BDC/ LNB via splitter channel 1 output to common input (Rx systems).

Option 3d; as above, except required channel is externally 'patched' back into the unit for 'flexible' DC & 10MHz multiplexing.

| | |
|---------|-------------------------|
| Voltage | +17 to +24VDC typically |
| Current | 1A max |

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

Redundant Amplifiers (Option 4)

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

DC Blocking (Option 8)

Provides DC blocking facility for combiner inputs or splitter outputs

Electronically Variable L-Band Attenuation (Option 10)

| | |
|-------------------|--|
| Attenuation range | 30dB |
| Step size | 0.1dB or 0.5dB |
| Control | Electronically variable via local (front panel) & remote control |

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

Mechanical

| | |
|--------|--|
| Width | 19", standard rack mount |
| Height | Typically up to 16-way in 1RU (1.75"), up to 24-way in 2RU (3.5"), up to 64-way in 3RU (5.25") |

Note; size is option dependent, for details please consult the factory.

| | |
|--------------|--|
| 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 (active versions only)

| | |
|-----------|---|
| Voltage | 90-264VAC |
| Frequency | 47-63Hz |
| Power | 30 Watts max. |
| Option 7; | Redundant PSU; provides a 1+1 redundant power supply configuration with separate prime power inputs |

Control System Interface

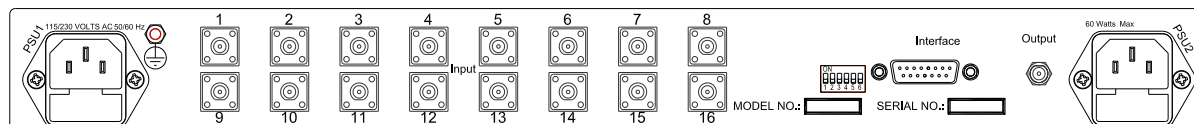
| | |
|-----------------------------|---|
| Remote control | RS232/RS485 port |
| Option 9; | Ethernet; embedded web server & SNMP network management support |
| Discrete 'alarms interface' | PSU fail Amplifier current detection |

Options

- 1a) BNC (f), 50 Ω connections
- 1b) N-Type (f), 50 Ω connections
- 1c) BNC (f), 75 Ω connections (passive units)
- 1d) BNC (f), 75 Ω connections (active units)
- 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
- 3c) DC & 10MHz pass-through for BUC/ BDC/ LNB drive
- 3d) DC & 10MHz pass-through for BUC/BDC/LNB drive via rear panel 'patch' cable
- 4) Redundant amplifiers (active versions only)
- 5) Spare port terminations.
- 7) Redundant power supplies
- 8) DC blocking for combiner inputs or splitter outputs
- 9) Ethernet interface with embedded web server & SNMP
- 10a) Electronic attenuator, 0-30dB (0.5dB steps), at L-Band
- 10b) Electronic attenuator, 0-30dB (0.1dB steps), at L-Band

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

Rear Panel View (16-way, L-Band, active combiner shown)



Peak Communications reserves the right to alter the specifications of this equipment without prior notice. ISLH, ICLH-050218.

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