# OSB Series

## Remote Mounted Distribution & Selection Switches

| | |
|---|---|
| **OSBxxL** | L-Band switches |
| **OSBxxS** | SHF (C/X/Ku/DBS-Band) switches |
| **OSBxxKa** | Ka-Band switches |

Equivalent rack mount units are available, please contact the factory.

The **OSB series** remote mounted distribution and source selection switch units from Peak Communications are designed to provide high quality signal switching, primarily for professional satellite earth station monitoring, distribution and general signal routing applications. Also suitable for;

Antenna selection purposes as typically required on superyachts.

UHF/ VHF antenna selection.

The **OSB series** units can accommodate up to 8-way switching and be remotely controlled via Ethernet with embedded web server & SNMP network management support. Optional local manual controls can also be provided.

The flexibility of the design allows for customization, so please consult the factory if the features that you require are not shown on this data sheet.

## *Peak Features*

- Latching switches to maintain RF path configuration in the event of power failure
- Up to 8-way, in distribution or selection configurations
- High isolation
- Ethernet based remote control fitted as standard, optional basic local controls
- Rugged weatherproof housing

# *OSB series – Typical Specification*

## Switch Performance

| | |
|---|---|
| Switch type | Co-axial, latching |
| Option 13; | Co-axial, failsafe |
| Ways (x:x) | 2:1, 1:2, 4:1, 1:4, 6:1, 1:6, 8:1, 1:8 |
| Frequency | |
| OSBxxL; | IF/L-Band; 9kHz to 3GHz |
| OSBxxS; | C, X, Ku & DBS-Band; 3 to 18.4GHz |
| OSBxxKa; | Ka-Band; up to 31GHz |

Note; for performance at Ka-Band, please contact the factory

| | |
|---|---|
| Insertion loss | 1dB ±1dB nom |
| Gain flatness | ±0.75dB across full band<br>±0.25dB across any 40MHz |
| Input power | +50dBm max. |
| Isolation | 80dB typ. (between any two input ports) |
| Input return loss | 15dB |
| Output return loss | 15dB |

## RF Interfaces

| | |
|---|---|
| Input connections | N-Type (f), 50Ω (K-Type above 20GHz) |
| Output connections | N-Type (f), 50Ω (K-Type above 20GHz) |

## Input/ Output 'Monitor' (Option 2)

Provides an appropriately terminated monitor port on the common input (distribution switches), or common output (source selection switches)

| | |
|---|---|
| Level | -20dBc ±3dB |

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

## DC Blocking (Option 8)

Provides DC blocking facility for switch inputs or outputs

## Electronically Variable 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 connection. Input power, noise figure & flatness degraded with this option, please contact factory for details.

## Failsafe Switching (Option 13)

Failsafe switching to default back to primary RF path in the event of a power failure.

## Mechanical

| | |
|---|---|
| Dimensions | 290 x 230 x 95mm (11.4 x 9.1 x 3.7inch) |
| Construction | Die-cast Aluminium, weatherproof, IP66 rated |
| Weight | Approx. 1.4kgs (3lbs) |

## Environmental

| | |
|---|---|
| Operating temp | -25°C to +55°C (less solar gain) |
| Option 12; | -40°C to +55°C (less solar gain), with extended warm-up time for cold start operation & higher current |
| Humidity | 0-100% condensing |
| EMC | EN 55022-part B & EN 50082-1 |
| Safety | EN 60950 |

## Power Supply

| | |
|---|---|
| Voltage | +27 to +36VDC |
| Current | 500mA max |
| Connection | Multi-pin circular, weatherproof (mating part supplied) |

## Control System Interface

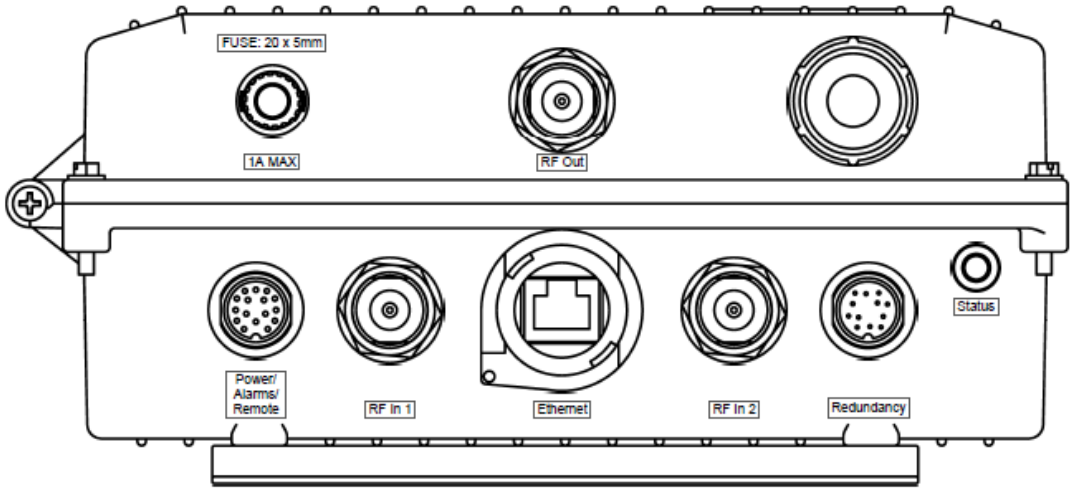
| | |
|---|---|
| M&C | Summary failure relay (form C) |
| Option 7; | Manual local switch control, mounted on chassis with LED indication. |
| Remote control | Ethernet; embedded web server & SNMP network management support |
| Connection | Multi-pin circular, weatherproof (mating part supplied) |

## *Options*

| | |
|---|---|
| 2) | Output monitor port |
| 5) | Spare port terminations |
| 7) | Manual local switch control |
| 8) | DC blocking for switch inputs or outputs |
| 10a) | Electronic attenuator, 0-30dB (0.5dB steps), at IF/ L-Band |
| 10b) | Electronic attenuator, 0-30dB (0.1dB steps), at IF/ L-Band |
| 12) | Low temperature operation to -40deg.C |
| 13) | Failsafe switches, defaulting back to primary RF path during power failure |
| 16) | Factory pre-set IP address |

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

# *Connector panel view (sample)*

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