

SATCOM EQUIPMENT INDEX



- RF over Fiber Optical Link
- L-Band Active Splitter
- L-Band Line Amplifier
- L-Band Passive Splitter
- L-Band Fan Out Matrix
- Ku-Band BDC & TLT
- 24 SAT Transp. Monitor
- SAT, TV & IP Monitoring



BROADCAST DIVISION



INSTRUMENTS DIVISION



19" Rack RF over FIBER LINK SYSTEM 50-3000 MHz & 10 MHz Ref. (LAN control)

• Series ROF8-IU

Indoor 1U Chassis contains:

- N.10 (front) + N.8 (rear) Em. Slots
- N.2 Hot-Swap IPS-5-24 PSU
- N.1 CNT-E-Compact controller
- N.2 J45 Ethernet LAN
- N.2 SFP Slots for Optical LAN
- WEB server and SNMP
- LNB power Supply

• Series ROF20-IU

Indoor 2U Chassis contains:

- N.23 (front) + N.20 (rear) Em. Slots
- N.2 Hot-Swap IPS-5-24 PSU
- N.1 CNT-E display & controller
- N.2 J45 Ethernet LAN
- N.2 SFP Slots for Optical LAN
- WEB server and SNMP
- LNB power Supply

• Series ROF20-OU

Outdoor 12U Cabinet contains:

- N.43 (front) Empty Slots
- N.2 Hot-Swap OPS-5-24 PSU
- N.1 CNT-E display & controller
- N.2 J45 Ethernet LAN
- N.2 SFP Slots for Optical LAN
- WEB server and SNMP
- LNB power Supply

Very High Dynamic Range, AGC/MGC gain Control or AUTORANGING control for Smart gain Optimisation, Measure of OMI (Optical Modulat. Index), Innovative RF Redundancy switch with directly pluggable modules, the OTX & ORX modules are Hot-Swap thank to the Clone Function, all units are equipped with efficient F/R ventilation.



Dual Side Slots

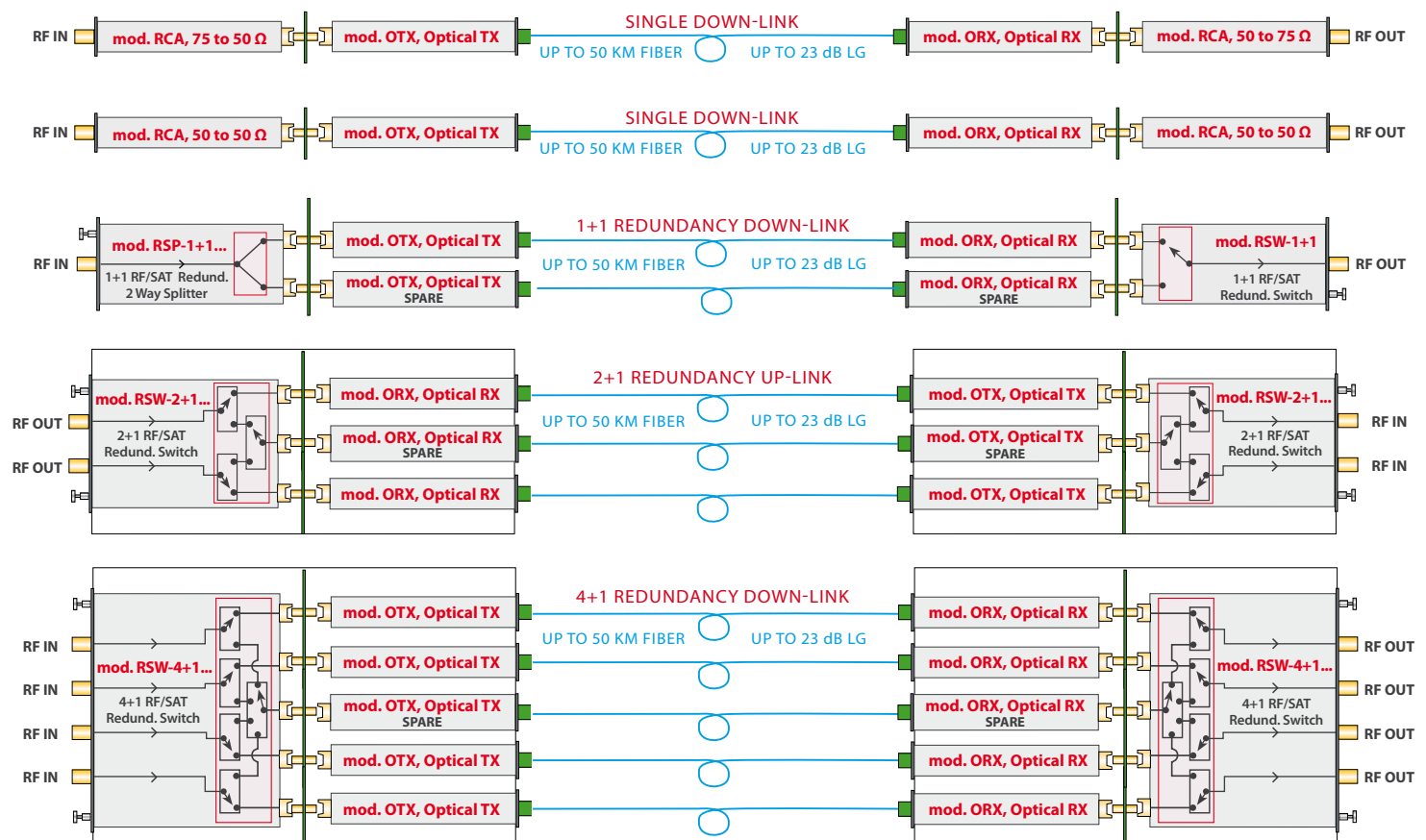


Dual Side Slots

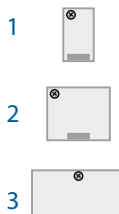


Single Side Slots

ROF8 or 20 Series, RF over Fiber Link assembly examples:



Available Modules list for ROF8/20 Series:

• OTX1-1310-x • OTX1-1550-x • OTX2-CWDM-x	Hot-Swap, 50-3000 MHz, DFB Laser 4,5 dBm pwr., 30 dB AGC/MGC or Autoranging RF Gain Adjust, 7 dB noise at Max gain, Front Led Alarms & RF Monitor port, up to 50 Km fiber link, on board Microcontroller.	 (front slot)	Connectors: SC-APC, FC-APC, LC
• OTX1-10-1310-x • OTX1-10-1550-x • OTX2-10-CWDM-x	Hot-Swap, 10-200 MHz REF, DFB Laser 4,5 dBm pwr., 15 dB AGC/MGC or Autoranging RF Gain Adjust, 13 dB noise at Max gain, Front Led Alarms & RF Monitor port, up to 50 Km fiber link, on board Microcontroller.	 (front slot)	Connectors: SC-APC, FC-APC, LC
• ORX1-x • ORX1-10-x	Hot-Swap, 1260-1650 n.m. High Sensitivity Photodiode, 30 dB AGC/MGC RF Output Power Adjust, Slope Control, Front Led Alarms & RF Monitor port, on board Microcontroller.	 (front slot)	Connectors: SC-APC, FC-APC, LC
• RCA-x-x module	Hot-Swap 10-3000 MHz, passive RF IN/OUT Impedance & connectors adapter 50 to 75 Ω or 50 to 50 Ω , 0,5 dB loss.	 (rear slot)	Connectors: F or BNC 75 Ω , SMA or N 50 Ω
• RCA-A-x-x module	Hot-Swap 10-3000 MHz, active RF High power Output Amplifier, 15 dB gain, 15 dBm pwr.	 (rear slot)	Connectors: F or BNC 75 Ω , SMA or N 50 Ω
• RSP-1+1-x module • RSW-1+1-x module • RSW-2+1-x module • RSW-3+1-x module • RSW-4+1-x module	RF 2 ways Splitter. RF Redundancy Switch. RF Redundancy Switch. RF Redundancy Switch. RF Redundancy Switch.	 1:2 1+1 2+1 3+1 4+1	Connectors: F or BNC 75 Ω , SMA or N 50 Ω (rear slot)
• CLO-M • CLO-2M • CLO-3M	Mechanical closure with fixing screw, (to close n. 1 empty slot). Mechanical closure with fixing screw, (to close n. 2 empty slot). Mechanical closure with fixing screw, (to close n. 3 empty slot).	 Front & Rear slot	Suggested for efficient ventilation
• OMD4-x-x module	4 ways Optical CWDM Mux/Demux (Wave Length 1470 - 1490 - 1510 - 1530 n.m.). 0,6 dB Insertion Loss, 45 dB Isolation.		Connectors: SC-APC or FC-APC or LC (front slot)
• OMD8-x-x module	8 ways Optical CWDM Mux/Demux (Wave Length 1470 - 1490 - 1510 - 1530 - 1550 - 1570 - 1590 - 1610 n.m.). 0,6 dB Insertion Loss, 45 dB Isolation.		Connectors: SC-APC or FC-APC or LC (front slot)

- **Series ROF1-OTX-S**
- **Series ROF1-ORX-S**

Outdoor IP65 Box contains:

- N.1 Empty Slot for TX /RX module
- N.1 LNB powering (OTX only)
- N.1 RF port for monitor & point.
- N.3 Rainproof female Connectors
- N.1 Wall fixing bar

- **Series ROF4-OTX-S**
- **Series ROF4-ORX-S**

Outdoor IP65 Box contains:

- N.4 Empty Slots for TX/RX module
- N.4 RF port for monitor & point.
- N.12 Rainproof female Connectors
- N.1 Wall fixing bar

- **Series ROF4-OTX-MUX-S**
- **Series ROF4-ORX-DEMUX-S**

Outdoor IP65 Box contains:

- N.4 Empty Slots for TX/RX module
- N.4 RF port for monitor & point.
- N.12 Rainproof female Connectors
- N.1 CWDM Optical MUX or DEM.
- N.1 Wall fixing bar

Very Compact IP65 Aluminum Box with hinged lid, easy Wall or Pole Fixing, optional redundant PSU, very High Dynamic Range, AGC/MGC gain Control.

1 Slot - Fiber



Rainproof connectors:



"F"

"SC-APC"

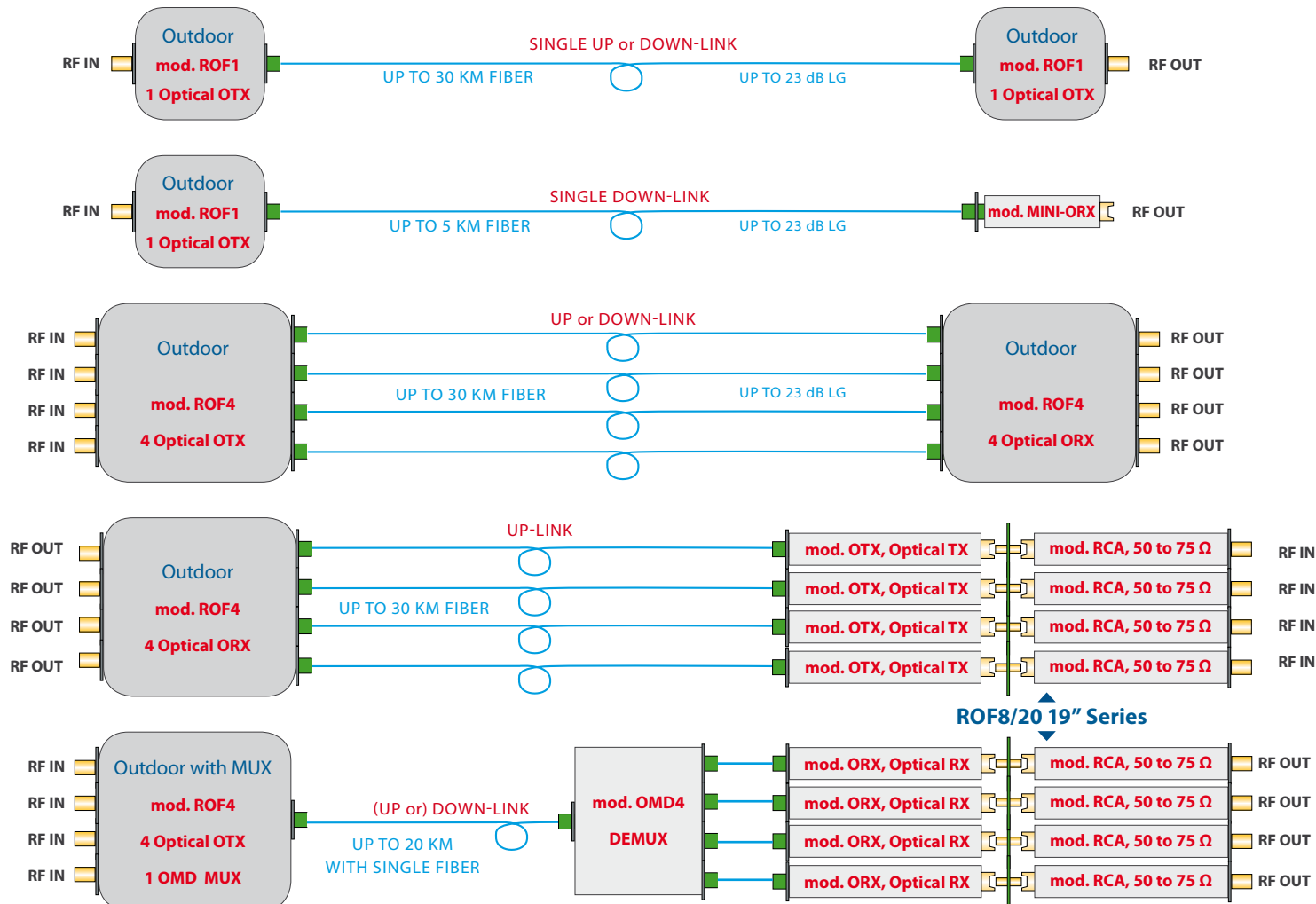
4 Slots - 4 Fibers

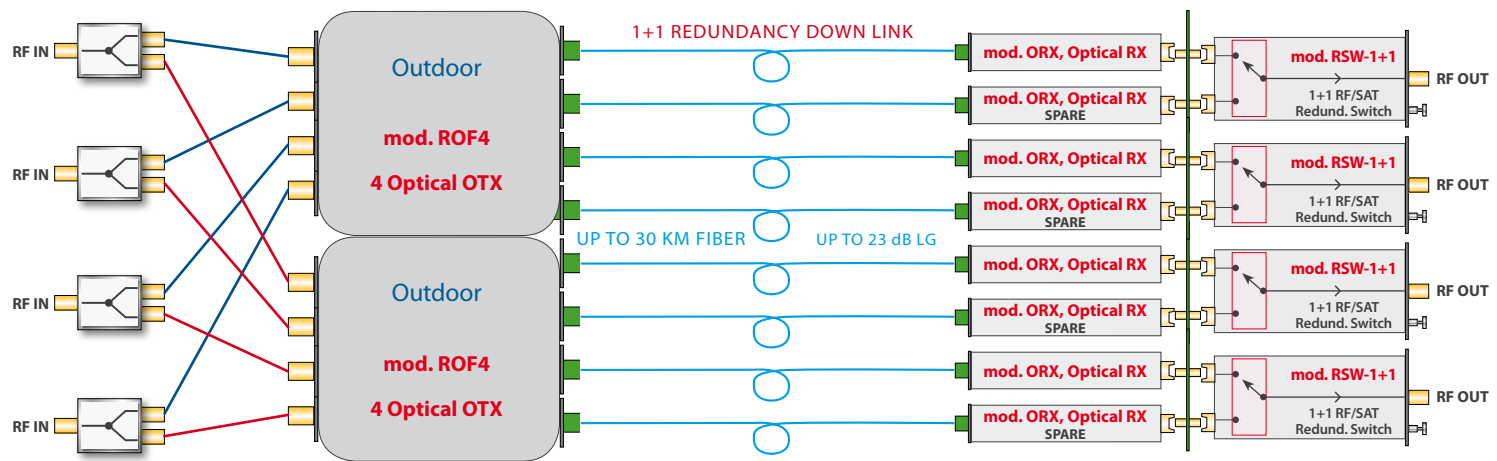


4 Slots - 1 Fiber, with CWDM MUX/DEMUX



RF over Fiber Link assembly examples :





Available Modules list:

- **OTX4-1310** Compact Module, 50-3000 MHz, DFB Laser 4,5 dBm
- **OTX4-1550** Optical pwr., AGC/MGC Gain Control, wide Optic
- **OTX5-CWDM** & RF Dynamic Range, on board Microcontroller.



- **OTX4-10-1310** Compact Module, 10-200 MHz REF, DFB Laser 4,5 dBm
- **OTX4-10-1550** Optical pwr., AGC/MGC Gain Control, wide Optic
- **OTX5-10-CWDM** & RF Dynamic Range, on board Microcontroller.



- **ORX4-x** 50-3000 MHz Compact Module, High sensitivity Photodiode 1260-1650 n.m., AGC/MGC Gain Control, wide Optic
- **ORX4-10-x** 10-200 MHz Ref & RF Dynamic Range, on board Microcontroller.



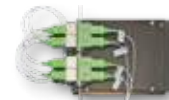
- **MINI-ORX-x** 50-3000 MHz Optic RX, High sensitivity Photodiode 1260-1650 n.m.
- **MINI-ORX-10-x** 10-200 MHz Ref Fixed gain, 12/18 Vdc in line powered, easy to connect to the Input of Active Splitter, IRD, Matrix Router.



- **OPS-12-10-F** 1 (or 2 redundant) Outdoor IP65 PSU, 100-240 Vac, 50/60 Hz, 12 Vdc 10A, (ROF1 support only 1 PSU, ROF4 can support 2 PSU).



- **OMD (Spare)** Optical 4 ways CWDM Mux/Demux (built-in, 1 on TX side & 1 on RX side) (Wave Lenght 1470 - 1490 - 1510 - 1530 n.m.), optional for ROF4 CWDM only.



- **LPBTX-2-x** 1 or 2 LNB powering board 13/18V/22K (each plug-in board, can power up 2 LNBs), (optional for ROF4-OTX only, you need 2 for 4 LNBs).



- **OSC-M-x** Optional Rainproof protection and cap for standard SC-APC Male Optical connector.



- **LCB-x-x** Optional plug-in LAN board for Remote control (ROF4 only).



OTHERS 19" RACK OPTICAL DISTRIBUTION EQUIPMENTS (LAN control)

- **Series RLT-D10** 1U Rack, High Power CWDM & DWDM Optical TX, WEB Server & SNMP.



- **Series REA-20** 1U Rack, EDFA High Power Optical Preamplifier + Booster, C-Band, 30 dB gain, 20 dBm Out power, WEB Server & SNMP.



- **Series ROS-2** 1U Rack, Redundant Optic Switch, WEB Server & SNMP.



19" RACK MULTIPLE OPTICAL SPLITTER

- **Series MOS10-2-S** 1U Rack, 10 Times 2 ways Optical Splitter, Connect. SC-APC.



- **Series MOS5-4-S** 1U Rack, 5 Times 4 ways Optical Splitter, Connect. SC-APC.



19" RACK MULTIPLE OPTICAL PATCH PANEL / TERMINATION BOX

- **Series MOP20-S** 1U Rack, patch panel with N. 20 SC-APC Optical connectors.



- **Series MOP40-S** 2U Rack, patch panel with N. 40 SC-APC Optical connectors.



- **Series MOP60-S** 3U Rack, patch panel with N. 60 SC-APC Optical connectors.



- **OPC-SCA-025** Optical Patch cord with SC-APC connector, lenght 0,25 m.
- **OPC-SCA-050** Optical Patch cord with SC-APC connector, lenght 0,50 m.
- **OPC-SCA-100** Optical Patch cord with SC-APC connector, lenght 1 m.



19" RACK MULTIPLE RF PASSIVE SPLITTER/COMBINER 730-3000 MHz

- **Series MSC20-2-x** 1U Rack panel, 20 Times 2 ways extended L-Band, Splitter/combiner, 700-3000 MHz.

Connectors: F or BNC, 75 Ω



- **Series MSC10-4-x** 1U Rack panel, 10 Times 4 ways extended L-Band, Splitter/combiner, 700-3000 MHz.

Connectors: F or BNC, 75 Ω



- **Series MSC20-4-x** 2U Rack panel, 20 Times 4 ways extended L-Band, Splitter/combiner, 700-3000 MHz.

Connectors: F or BNC, 75 Ω

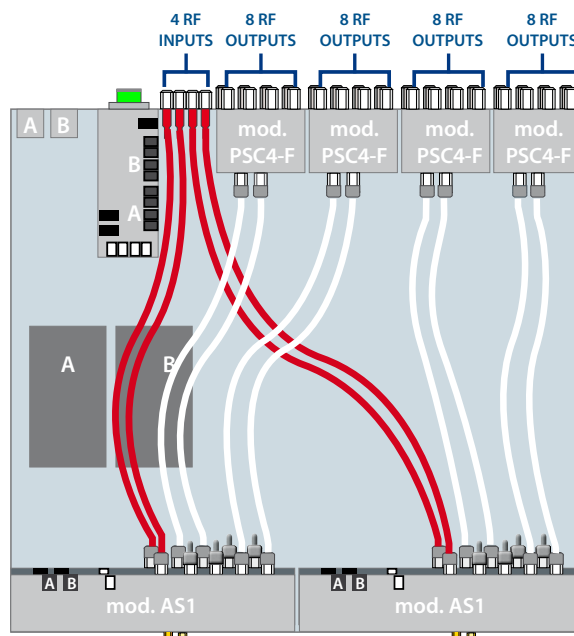
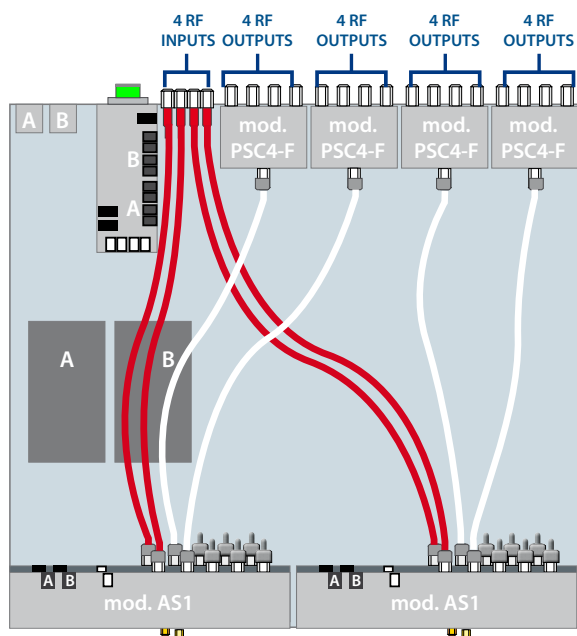


19" RACK WIDE BAND ACTIVE SPLITTER, 50-3000 MHz (Front Switch control)

- **Series RAS1-x-x** from 1 to 4 INPUTS & from 4 to 32 OUTPUTS,
1U Rack, Redundant PSU, LNB Powering, Dry Contact Alarm.



RF multiple Splitter assembly examples :



Available Modules for future optional extension:

- **AS1-x** Plug-in Input Amplifiers, 1 IN & 4 OUT, with RF Monitor Port, up to 4 front Modules.



- **PSC-4-x** 4 way Output Passive Splitters, up to 8 Modules. Connector: F or BNC 75 Ω.



- **MINI-ORX-x** 50-3000 MHz

Optic RX, High sensitivity Photodiode 1260-1650 n.m.
Fixed gain, 12/18 Vdc in line powered, easy to connect to
the Input of Active Splitter, IRD, Matrix Router.



• **Series RAS2-x-x**

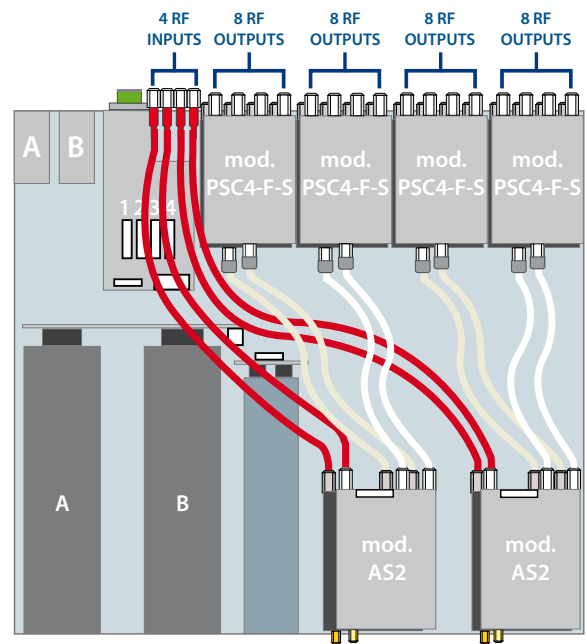
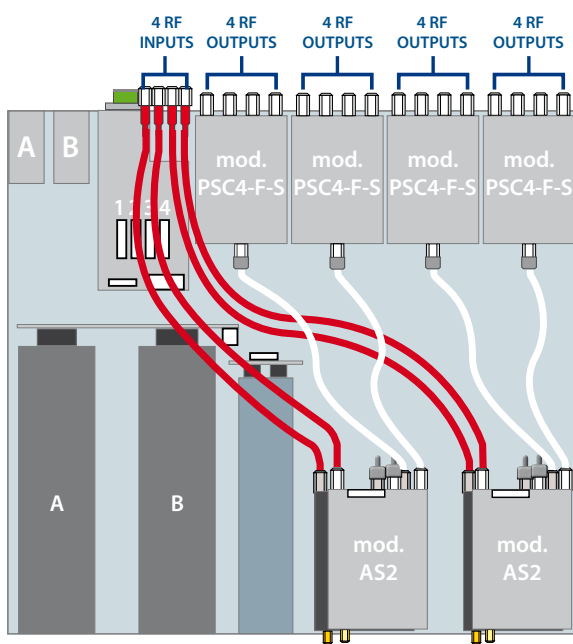
1U Indoor Chassis contains:

- N.2 Hot-Swap IPS-12-5 PSU, 12 Vdc 5A
- N.1 CNT-Compact Controller & display module
- N.2 J45 Ethernet LAN
- N.1 SFP Slot for Optical Ethernet LAN



From 1 to 4 INPUTS & from 4 to 32 OUTPUTS, Hot-Swap Redundant PSU, LNB Powering, WEB Server SNMP & Alarms, Gain Adj., Slope Adj.

RF multiple Splitter assembly examples :



Available Modules for future optional extension:

- **AS2-x** Plug-in Amplifiers, 1 IN & 2 OUT, with RF Monitor Port, up to 4 front Modules.



- **IPSC-4-x-S-x** 4 way Splitters, up to 8 Modules. Connector: F or BNC 75 Ω - SMA 50 Ω.



- **IPSC-8-x-S-x** 8 way Splitters, up to 4 Modules. Connector: F or BNC 75 Ω - SMA 50 Ω.



- **MINI-ORX-x** 50-3000 MHz

Optic RX, High sensitivity Photodiode 1260-1650 n.m.
Fixed gain, 12/18 Vdc in line powered, easy to connect
to the Input of Active Splitter, IRD, Matrix Router.



- **CLO-AS2** mechanical Closer with fixing screw (to close N.1 empty front slot).



• **Series RAS3-x-x**

1U Indoor Chassis contains:

- N.2 Hot-Swap IPS-12-5 PSU, 12 Vdc 5A
- Color Display and key board Controller
- Up to 4 Empty Hot Swap slots for splitter
- Optional Dry Contact Alarm

From 1 to 4 Inputs & from 4 to 32 Outputs, Hot swap Redundant PSU, up to 4 Hot swap splitter modules with on board non volatile memory, Independent programmable LNB powering 13/18/22 K, 1 dB gain & 3 dB positive Slope.



RF multiple Hot-Swap Active Splitter assembly examples :

4 TIME 4 WAYS



4 TIME 8 WAYS



2 TIME 16 WAYS



Available Hot-swap Active Splitter module (with on board non volatile memory):

- **AS3-4-F** 4 Ways Hot-Swap Active Splitter, up to 4 rear modules. Conn.: F 75 Ω.
- **AS3-4-B** 4 Ways Hot-Swap Active Splitter, up to 4 rear modules. Conn.: BNC 75 Ω.
- **AS3-4-S** 4 Ways Hot-Swap Active Splitter, up to 4 rear modules. Conn.: SMA 50 Ω.



- **AS3-8-F** 8 Ways Hot-Swap Active Splitter, up to 4 rear modules. Conn.: F 75 Ω.
- **AS3-8-B** 8 Ways Hot-Swap Active Splitter, up to 4 rear modules. Conn.: BNC 75 Ω.
- **AS3-8-S** 8 Ways Hot-Swap Active Splitter, up to 4 rear modules. Conn.: SMA 50 Ω.



- **AS3-16-F** 16 Ways Hot-Swap Active Splitter, up to 4 rear modules. Conn.: F 75 Ω.
- **AS3-16-B** 16 Ways Hot-Swap Active Splitter, up to 4 rear modules. Conn.: BNC 75 Ω.
- **AS3-16-S** 16 Ways Hot-Swap Active Splitter, up to 4 rear modules. Conn.: SMA 50 Ω.



- **CLO-AS3-8** mechanical Closer (to close N.1 empty rear slot 4 or 8 ways splitter)
- **CLO-AS3-16** mechanical Closer (to close N.1 empty rear slot 16 ways splitter)



- **MINI-ORX-x** 50-3000 MHz

Optic RX, High sensitivity Photodiode 1260-1650 n.m.
Fixed gain, 12/18 Vdc in line powered, easy to connect
to the Input of Active Splitter, IRD, Matrix Router.



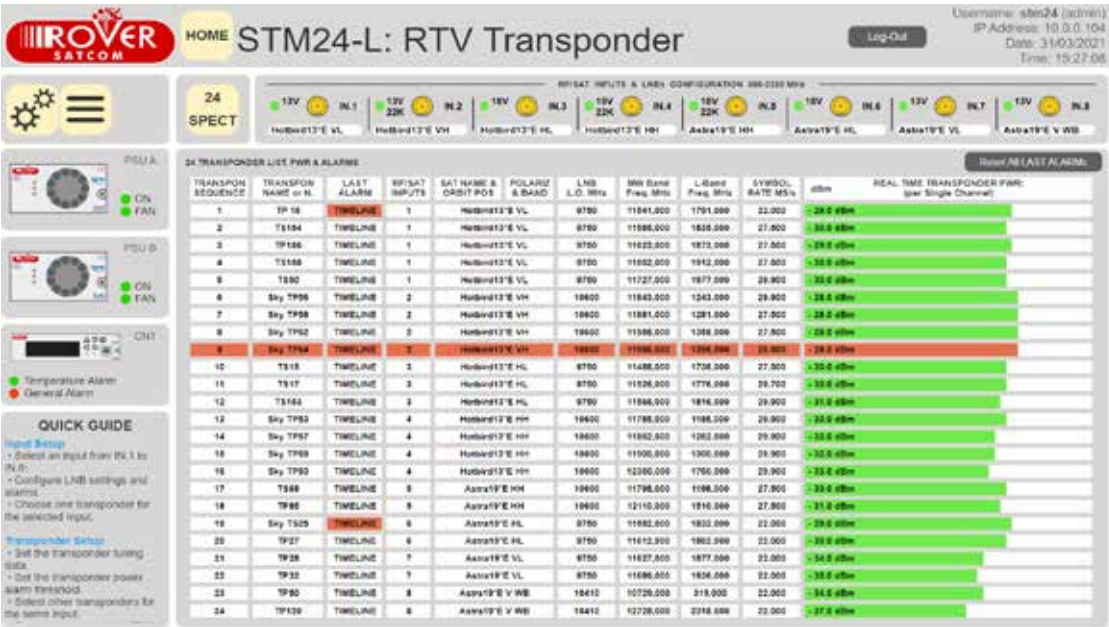
- **Series STM24-L Down-Link L-Band SAT Transponder Monitor**
 - Up to N. 8 RF Inputs 300-2450 MHz,
 - Up to N. 24 Simoultaneously Selectable Transp.
 - 1U Rack, N. 2 Hot-swap PSU, LNB powering
 - WEB Server, SNMP Measurements & Alarms.



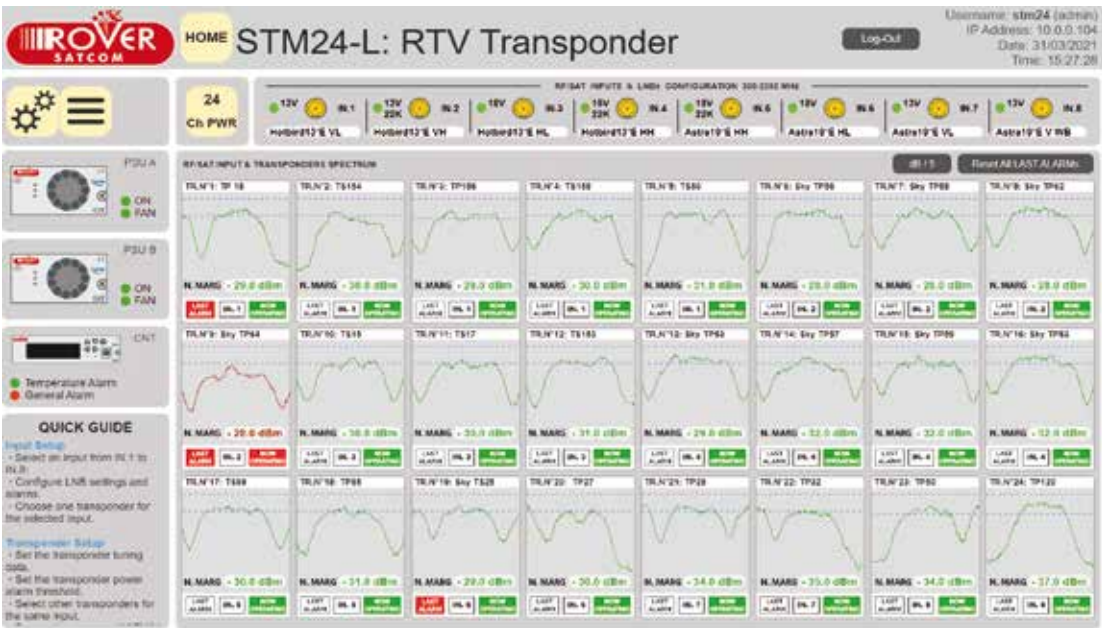
- **Series STM24-KL Up-Link Ku-Band & Down-link L-Band SAT Transponder Monitor**
 - Up to N. 4 MW Inputs 12,85 - 18,45 GHz,
 - Up to N. 8 RF Inputs 300-2450 MHz,
 - Up to N. 24 Simoultaneously Selectable Transp.
 - 2U Rack, N. 2 Hot-swap PSU, LNB powering
 - WEB Server, SNMP Measurements & Alarms.

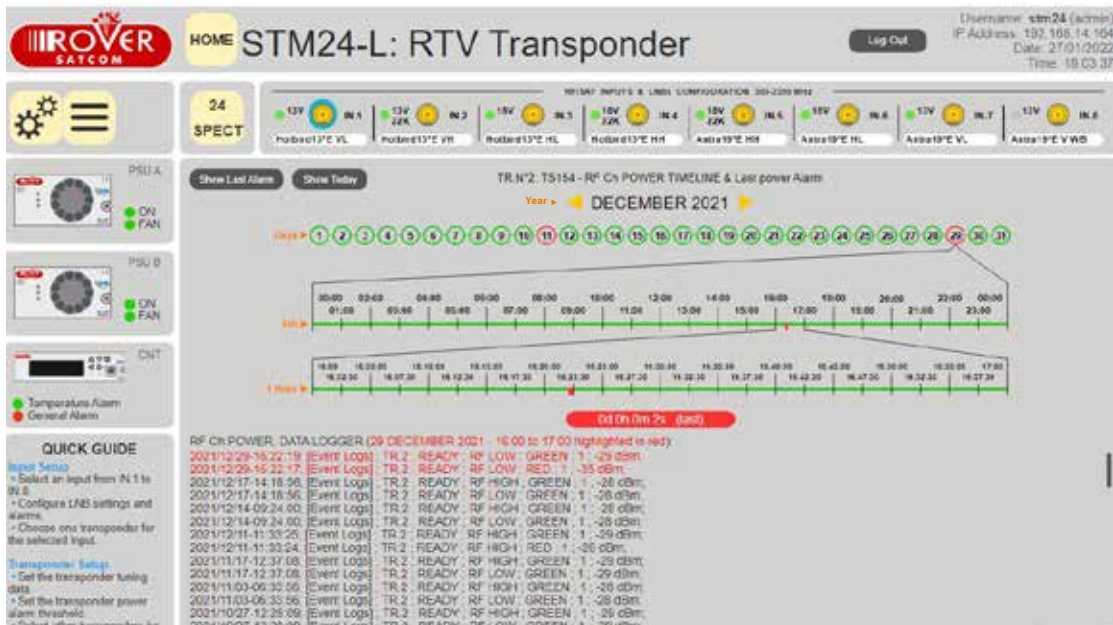


WEB Control examples :



24 Transponders Power & Alarms





Data Logger Alarms:
Year / Month / Day / Hour



24 Transponders
with optional DVB-S2
Multistream Demodulator
to measure:

- MER
- BCH
- bBER
- LDPC
- aBER
- PER

Options for STM24-L & STM24-KL :

- **STM24-DEM-x-x** Up-to N. 8 DVB-S-S2 & S2 Multistream Measurement Demodulators Board.



- **STM24-OUT** Up-to 24 Transponder converted, leveled and lined-up, in 1 L-Band output, for external signal analysis.

24 Selected Transponders Outputs Frequency (75 Ohm Load Required)

T.1 = 800 MHz	T.7 = 1190 MHz	T.13 = 1580 MHz	T.19 = 1970 MHz
T.2 = 865 MHz	T.8 = 1255 MHz	T.14 = 1645 MHz	T.20 = 2035 MHz
T.3 = 930 MHz	T.9 = 1320 MHz	T.15 = 1710 MHz	T.21 = 2100 MHz
T.4 = 995 MHz	T.10 = 1385 MHz	T.16 = 1775 MHz	T.22 = 2165 MHz
T.5 = 1060 MHz	T.11 = 1450 MHz	T.17 = 1840 MHz	T.23 = 2230 MHz
T.6 = 1125 MHz	T.12 = 1515 MHz	T.18 = 1905 MHz	T.24 = 2295 MHz

- **Series LPI-x-x** 1U Rack, Hot-Swap Dual Redundant PSU
 - 5 - 3000 MHz ultra wide band Operating Frequency Range
 - Up to 10 LNB^s with independent Voltage Selection 13/18 V, 22 KHz
 - Up to 500 mA Current Consumption per path, with independent Short Circuit Protections & Alarms
 - Dual redundant Hot-Swap PSU with related LED^s & Dry Contacts Alarms.



Front view :



Rear view :



- **Series RLP-x-x** 1U Rack, from 2 to 12 RF Lighting Protectors

Connectors: N 50 Ω or F 75 Ω

- High temperature range
- Dc voltage transite for Inb power supplying
- High ingress protection rating
- Easy exchangeable surge suppressors.



Front view :



Rear view :



- **Series MRX-x-x** 1U Rack chassis, Hot-Swap Dual Redundant PSU, LAN switch (opt.), Dry contact Alarm, up to 4 complete Receiver Boards.



Available Hot-swap Receiver Boards :

- **RS-200** Receiver board with SATELLITE Head-end, 950-2150 MHz, for reception and demodulation of DVBS/S2 signals.



- **RT-200** Receiver board with TV Head-end, 48-870 MHz, for reception and demodulation of DVBT/T2 signals.



HW & SW Options:

- **OMRX-ASI/IP-ETR** ASI Output, IP Encap/Decap, ETR 101-290 Analyzer with Alarms.

- **OMRX-DEC-AV-CI** MPEG H264 Decoder, HDMI Output, Analog A/V Output, Common Interface Descrambler Slot.

- **OMRX-SPECT** Spectrum Analysis function.

- **OMRX-CONST** Constellation Diagram, Reflectometer, MER vs CARRIER (RT-200 only).

- **OMRX-LAN-SWITCH** Internal 4 ports LAN SWITCH for LAN connection of 4 Receiver boards in one cable.

- **Series EXA-PROBE-x-x** 2U Rack Mount chassis, with Embedded PC, Dual Redundant PSU, 8 ports LAN Ethernet switch, 4 slots for up to 4 Examiner Probe modules.



SW & HW Modules:

- **RT-100** Professional Radio & TV Receiver & Probe Module for RF analysis with Alarms, T.S. analysis with alarms, Spectrum & Impulse response.



- **EXA-POD-WEB** Software installed on the EXA-PROBE for signals monitoring and diagrams presentation of Spectrum, Impulse response, Service Bit Rate Analysis, Signal acquisition, Different Signals comparison.

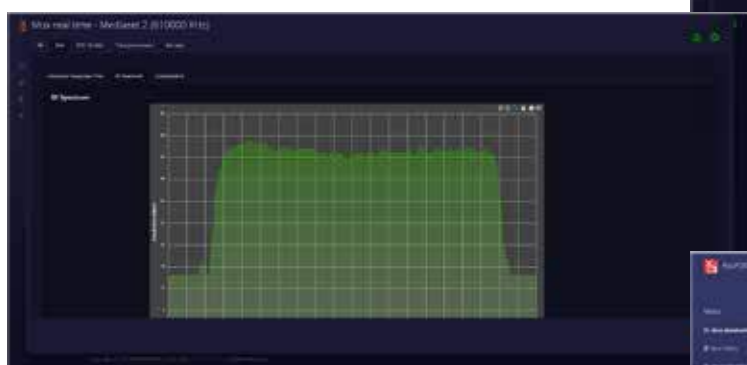
EXA-POD WEB examples:



Live Impulse Response diagram



Services BIT RATE diagram



Live Spectrum analysis



Round Robin MUX analysis

- **Series EXAMINER-PROBE** Professional Radio, TV, SAT & CATV Probe with IP Encap/Decap, ASI output, T.S. Analysis, HD/SD SDI Output, Remote control with NMS & SNMP.



EXAMINER PROBE web examples:



Parameters and measures.



Spectrum analysis with selectable SPAN.

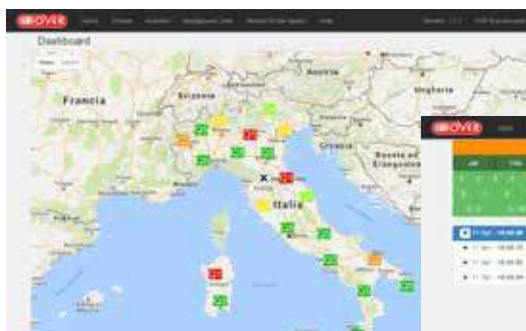


T.S. Analyzer ETR 101-290.



The Mosaic allow to analyze up to 6 measures screens on the same display.

- **ROVER-NMS** Network Management System for multiple Probes Monitoring and Measure/Alarms data collection.



Quick monitoring of all Probes in your country.



Two years calendar event storage.



Live Monitoring of Channel Parameters TV/CATV & SAT.

- **Series EXA-700-TAB** Professional portable Analyzer with touch screen & High Power LI-PO Battery. **MAIN FUNCTIONS:**
RF demodulated Measures, Real-time Spectrum Analyzer, Constellation Diagram, Service list, Live Pictures, ETR 101-290 Transport Stream Analyzer, Common Interface Slot, Double RF Input ("N" 50 Ω , "F" 75 Ω), **LAN Connection & Remote Control**, double USB ports for data & alarms storage, Rugged bag for safe use & transportation, avionic aluminium body robust and lite.



EXA 700 TAB web examples:

Multiple Measures
in one screen



Real Time spectrum Analyzer



Service list and picture



ETR 101290
Transposrt Stream Analyzers



• Series **BDC2-x-x** (Down-Link)

Simultaneous Low & High Band

1 Input & 2 Outputs, Internal or External
switchable 10 MHz REF

- INPUT: - Low & High Ku-Band = 10,7 to 12,75 GHz
- OUTPUT: - Low L-Band = 950 - 1950 MHz
- High L-Band = 1100 - 2150 MHz
- Connectors: SMA 50 Ω

• Series **BDC3-x-x & TLT** (for Up-Link

Monitor & Test)

Selectable triple Band, 1 Input & 1 Output,
Internal or External switchable 10 MHz REF,
USB programmable band and gain adjust

- INPUT: - Low Ku Band = 12,85- 13,25 GHz
- High Ku Band = 13,75 - 14,50 GHz
- DBS Band = 17,10 - 18,40 GHz
- OUTPUT: - L-Band = 950 to 1850 MHz
- Connectors: SMA 50 Ω

The **BDC2-X** is a HIGH STABILITY LOW PHASE NOISE DUAL BAND "PLL" BLOCK DOWN CONVERTER.

It allow to cover simultaneously the full Ku-Band, Frequency range thanks to the two LOW and HIGH Band Outputs.

The **BDC3-X** is a HIGH STABILITY & LOW PHASE NOISE AGILE TRIPLE BAND "PLL" BLOCK DOWN CONVERTER.

It allow to select all the Ku & DBS Up-Link Band Frequency range, thanks to the switchable L.O. and B.P. filters.

Designed for indoor and outdoor applications, they can work in a vaste temperature range and are designed to be easily customized in 1U Rack.

Ideal for Professional use, like Redundancy, Distribution & Monitoring, they are corrently the best value for money.



Internal view

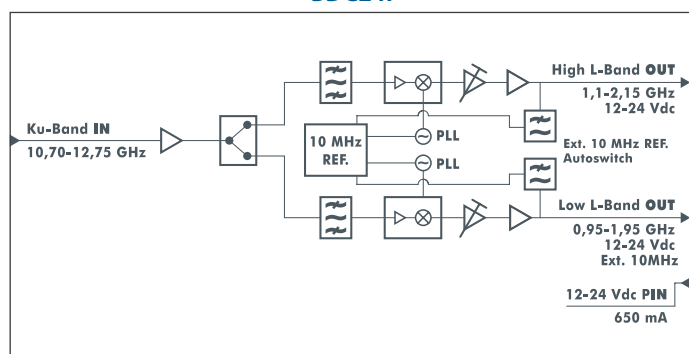
Rear view



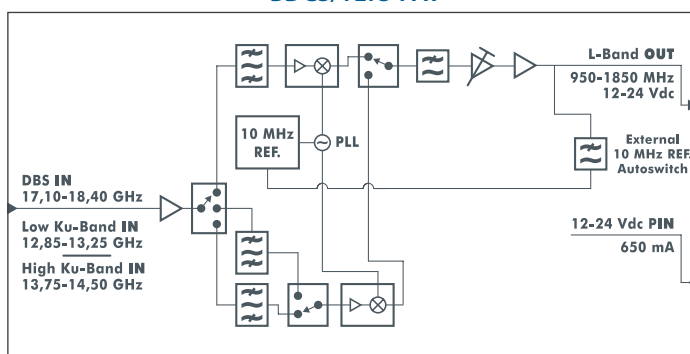
19" 1U Rack
Version
available

Block diagram :

BDC2-x



BDC3/TLT3-A-x



- **Series Ku-RDCS-x-x** 2U Rack chassis, Hot-Swap Dual Redundant PSU, WEB Server & SNMP Controlled,

N. 2 Hot-Swap Modules, Dual Ku-Band (H/L) & Dual polarization (V/H)

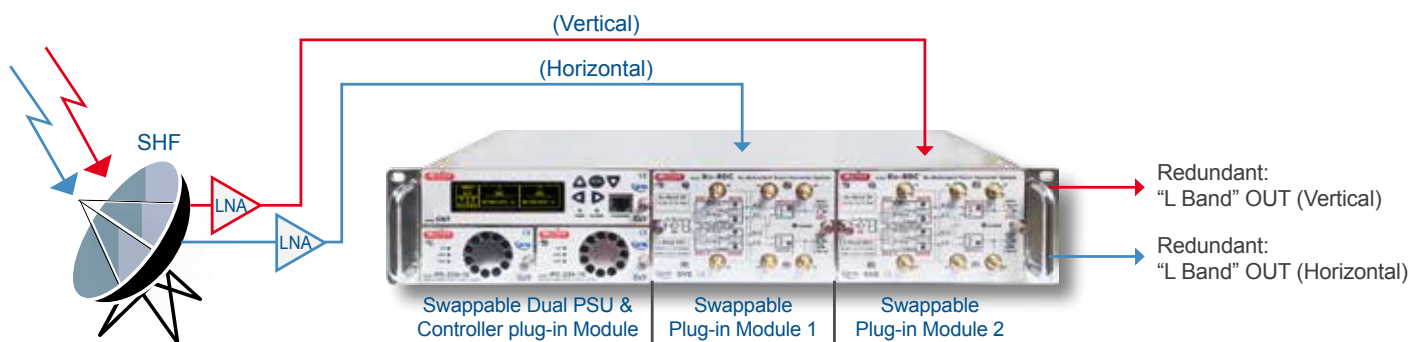
- **INPUT:** - Low & High Ku-Band = 10,7 - 12,75 GHz
- **OUTPUTS:** - Low L-Band = 950 - 1950 MHz
- High L-Band = 1100 - 2150 MHz



Each Module contain
N. 2 Redundant
Dual Band BDC
(mod. BDC2-x-x)



Block diagram :



WEB Control example :

ROVER SATCOM Ku-RDCS System < user defined >

Slot1 : SAT NAME...

Administration
General Settings
Network Settings
Alarm Settings
SNMP Settings
Device Info

Modules
Slot1 : ASTRA 19 vertical
Slot2 : <User defined>

Block Diagram:

IN (Ku-Band) → BDC1 (MAIN) → OUT (L-Band)
IN (Ku-Band) → BDC2 (SPARE) → OUT (L-Band)

LNA & BDC Powering:

- LNA Powering: OFF ☐ ON ☒
- BDC1 Current: 0 mA (Min Range) to 800 mA (Max Range). BDC Min Current Alarm Threshold Adj.: 250 mA.
- BDC2 Current: 0 mA (Min Range) to 800 mA (Max Range). BDC Min Current Alarm Threshold Adj.: 250 mA.

RF Power & Alarms:

HIGH BAND (MAIN):

- H-1 (RMS Pwr OUT): -20 dBm (Min Range) to -40 dBm (Max Range). RF Min Output Power Alarm Threshold Adj.: -34 dBm.
- L-1 (RMS Pwr OUT): -20 dBm (Min Range) to -40 dBm (Max Range). RF Min Output Power Alarm Threshold Adj.: -34 dBm.

LOW BAND (SPARE):

- H-2 (RMS Pwr OUT): -20 dBm (Min Range) to -40 dBm (Max Range). RF Min Output Power Alarm Threshold Adj.: -34 dBm.
- L-2 (RMS Pwr OUT): -20 dBm (Min Range) to -40 dBm (Max Range). RF Min Output Power Alarm Threshold Adj.: -34 dBm.

L-BAND OUTPUTS:

- HIGH (RMS Pwr OUT): -20 dBm (Min Range) to -40 dBm (Max Range). RF Min Output Power Alarm Threshold Adj.: -34 dBm.
- LOW (RMS Pwr OUT): -20 dBm (Min Range) to -40 dBm (Max Range). RF Min Output Power Alarm Threshold Adj.: -34 dBm.

Module ID: Model: MODELLO, Serial Number: 16-0000, FW-Version: 1.0.2 01/09/2020

Home page

Username: rover (admin), IP Address: 192.168.1.11, Date: 14/01/2020, Time: 16:14:30

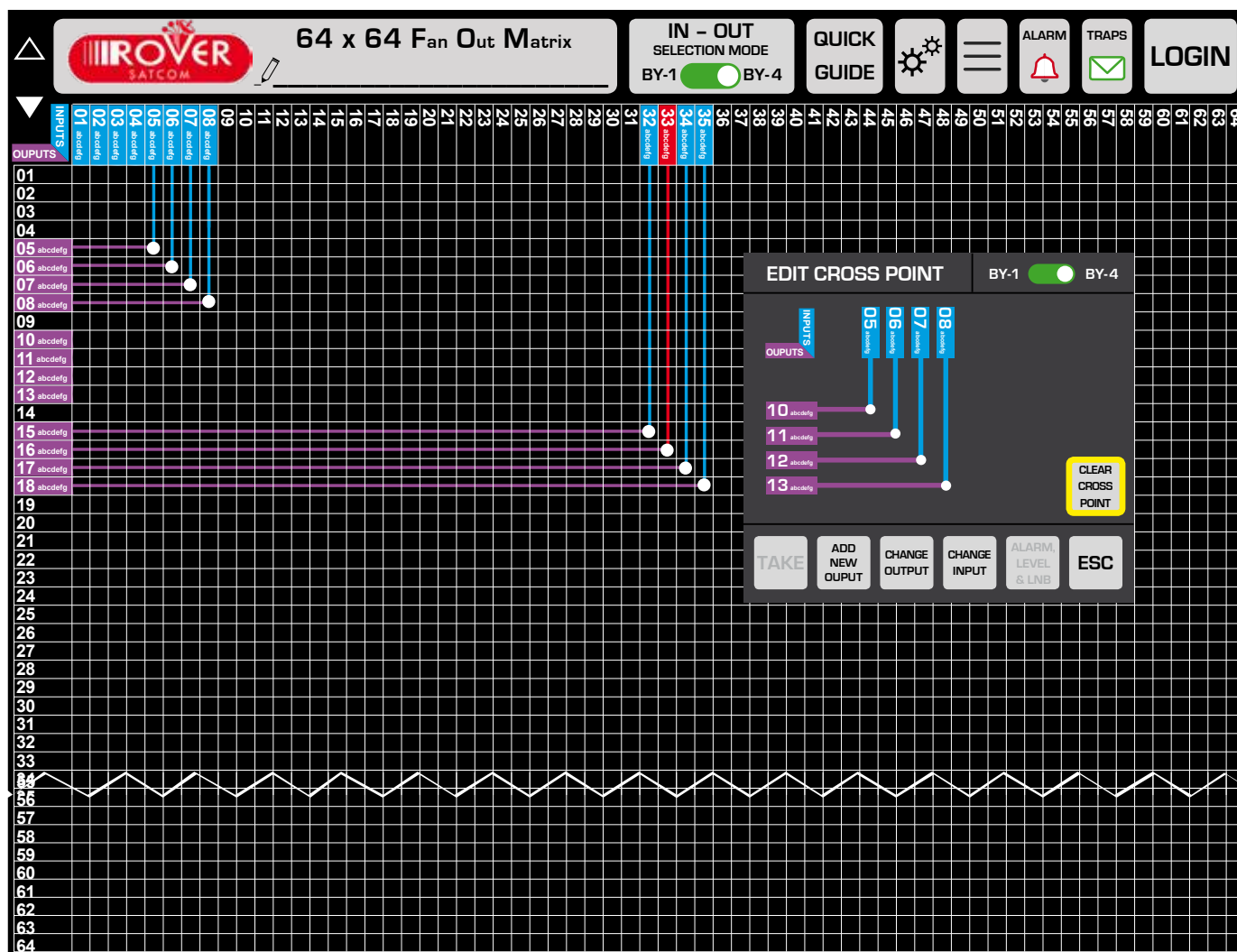
Log-Out

Alarm ON

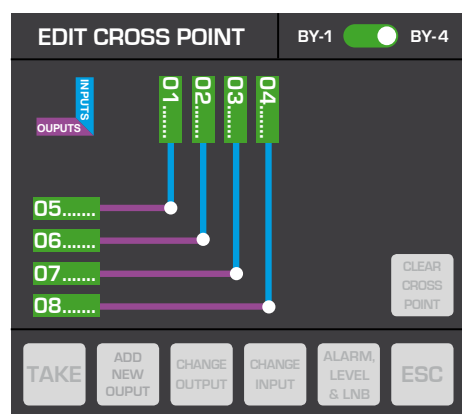
- Series **FOM-64x64-x-x** 4U Rack, Redundant PSU, Built-in Windows 10 PC Board, WEB Server, Local Touch display Controller, AGC/MGC gain Control, from -45 to -5 dBm RSM Input level.

Options:

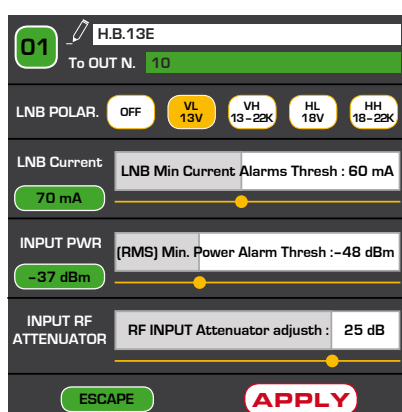
- LNB Powering (in blocks of N.8)
- RF Connector: "F" or "BNC" 75 Ω or SMA 50 Ω .
- OPTIC Connector SC-APC (with Optional MINI-ORX)



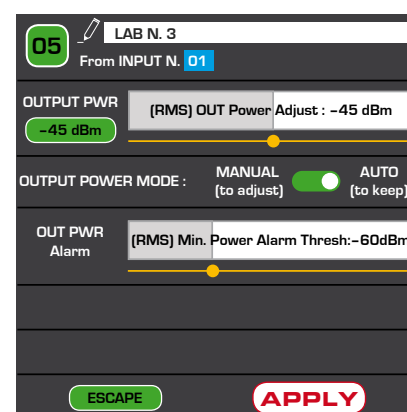
Matrix CROSS POINT Configuration



BY-4 automatic IN/OUT Selection



INPUT Configuration



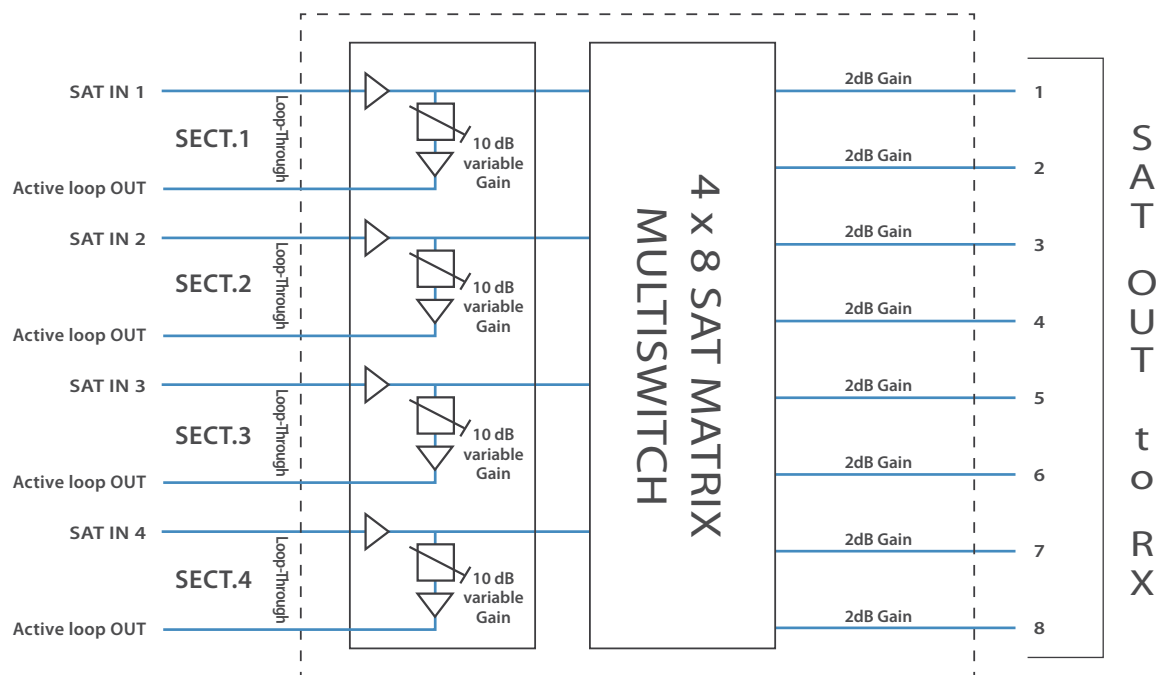
OUTPUT Configuration

19" RACK FAN OUT SIMPLIFIED 4x8 L-BAND SAT MATRIX (Front & Rear Switch Control)

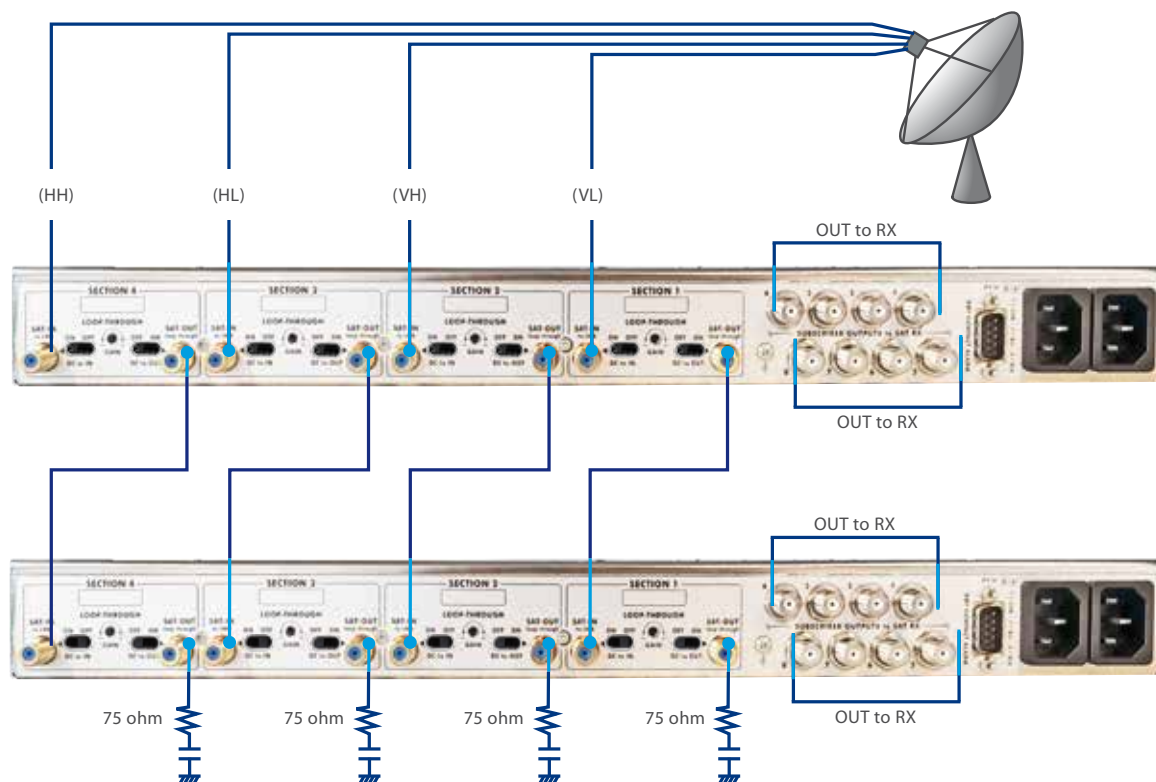
- **Series RSM-48** 1U Rack, Redundant PSU, S.C. protected,
LNB Powering, 4 IN & 8 OUT, RF Input with Active Loop Through.



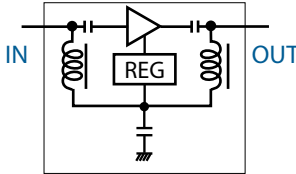
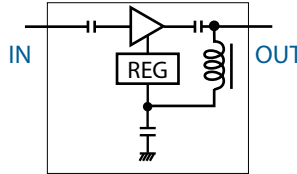
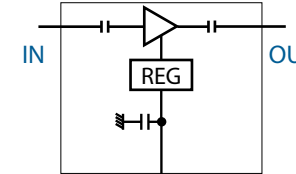
Block diagram :

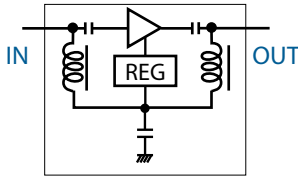
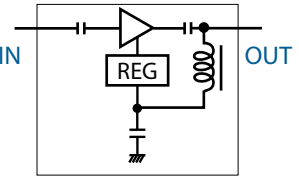
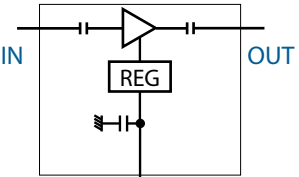


Cascadable connection example :

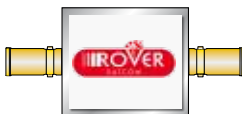
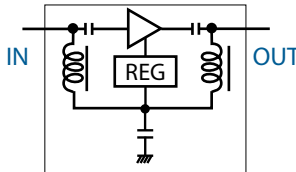
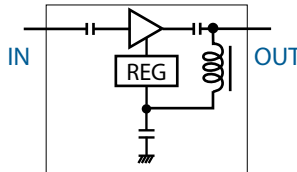
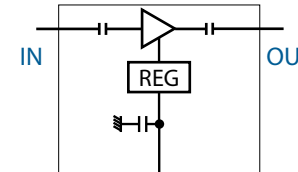


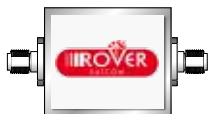
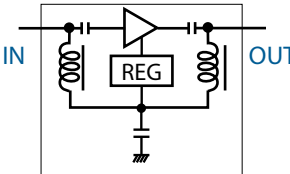
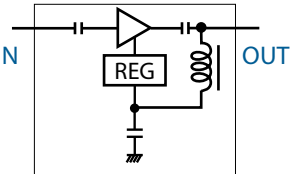
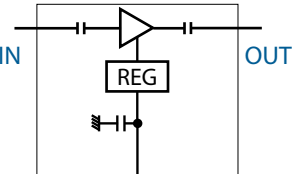
N. MARG

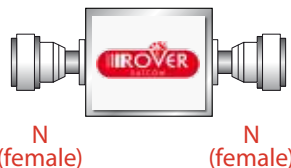
Up to 5 dB Positive Gain Slope - D.C. Option - 22 KHz option - 10 MHz option	Series MFIAM-x-F  F (male)F (female) AMPLIFIER CODE MALE FEMALE INDOOR AMPLIFIER -15- F dB gain 75 IMPEDANCE DC F CONN. DC to Input (+22K+10M) EXTERNAL PIN for PSU EX													
Diagram	 PS 9/18 V = via Out port D.C. to IN = Pass 22 KHz = Pass 10 MHz = Pass				 PS 9/18 V = via Out port D.C. to IN = Block 22 KHz = Block 10 MHz = Block				 PS 9/18 V = via External PIN D.C. to IN = Block 22 KHz = Block 10 MHz = Block					
Model	MFIAM-15-F-75-DC	MFIAM-20-F-75-DC	MFIAM-25-F-75-DC	MFIAM-30-F-75-DC		MFIAM-15-F-75	MFIAM-20-F-75	MFIAM-25-F-75	MFIAM-30-F-75		MFIAM-15-F-75-EX	MFIAM-20-F-75-EX	MFIAM-25-F-75-EX	MFIAM-30-F-75-EX
Freq. Range MHz	50 - 3000					50 - 3000					50 - 3000			
Gain at 50 MHz	8	13	18	23		8	13	18	23		8	13	18	23
Gain at 950 MHz	12	17	22	27		12	17	22	27		12	17	22	27
Gain at 2150 MHz	15	20	25	30		15	20	25	30		15	20	25	30
Gain at 3000 MHz	13	18	23	28		13	18	23	28		13	18	23	28
Noise dB at 1500 MHz	< 10 dB					< 10 dB					< 10 dB			
P1 out dB at 1500 MHz	16 dBm					16 dBm					16 dBm			
Input R. Loss dB typ	typ. 15					typ. 16					typ. 17			
Output R. Loss dB typ	typ. 14					typ. 15					typ. 16			
Power Supply mode	via: OUTPUT PORT					via: OUTPUT PORT					via: EXTERNAL PIN			
D.C. transit to Input	✓					-					-			
22 KHz & 10 MHz transit (no gain)	PASS					BLOCK					BLOCK			
See Price at page N.														

Up to 5 dB Positive Gain Slope – D.C. Option – 22 KHz option – 10 MHz option	Series FFIAM-x-F  F (female)F (female) AMPLIFIER CODE F F I A M - 1 5 - F 7 5 D C E X F F I A M – 15 – F 75 DC EX FEMALE FEMALE INDOOR AMPLIFIER dB gain F CONN. IMPEDANCE DC to Input (+22K+10M) EXTERNAL PIN for PSU															
Diagram	 PS 9/18 V = via Out port D.C. to IN = Pass 22 KHz = Pass 10 MHz = Pass				 PS 9/18 V = via Out port D.C. to IN = Block 22 KHz = Block 10 MHz = Block				 PS 9/18 V = via External PIN D.C. to IN = Block 22 KHz = Block 10 MHz = Block							
Model	FFIAM-15-F-75-DC				FFIAM-20-F-75-DC				FFIAM-25-F-75-DC				FFIAM-30-F-75-DC			
					</											

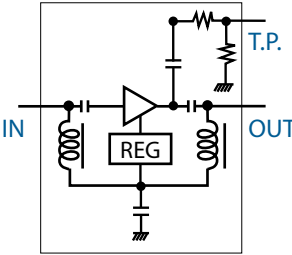
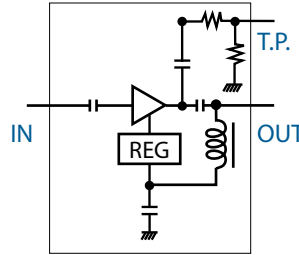
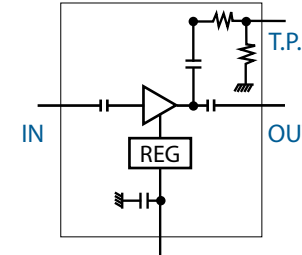
FEMALE & FEMALE **INDOOR IN-LINE L-BAND AMPLIFIER, 75 Ω "BNC" Connector, 50-700-3000 MHz**

Up to 5 dB Positive Gain Slope - D.C. Option - 22 KHz option - 10 MHz option	Series FFIAM-x-B  BNC (female) BNC (female) AMPLIFIER CODE F F I A M - 1 5 - B 7 5 D C E X FEMALE FEMALE INDOOR AMPLIFIER dB gain BNC CONN. IMPEDANCE DC to Input (+22K+10M) EXTERNAL PIN for PSU															
Diagram	 PS 9/18 V = via Out port D.C. to IN = Pass 22 KHz = Pass 10 MHz = Pass					 PS 9/18 V = via Out port D.C. to IN = Block 22 KHz = Block 10 MHz = Block					 PS 9/18 V = via External PIN D.C. to IN = Block 22 KHz = Block 10 MHz = Block					
Model	FFIAM-15-B-75-DC	FFIAM-20-B-75-DC	FFIAM-25-B-75-DC	FFIAM-30-B-75-DC		FFIAM-15-B-75	FFIAM-20-B-75	FFIAM-25-B-75	FFIAM-30-B-75		FFIAM-15-B-75-EX	FFIAM-20-B-75-EX	FFIAM-25-B-75-EX	FFIAM-30-B-75-EX		
Freq. Range MHz	50 - 3000					50 - 3000					50 - 3000					
Gain at 50 MHz	8	13	18	23		8	13	18	23		8	13	18	23		
Gain at 950 MHz	12	17	22	27		12	17	22	27		12	17	22	27		
Gain at 2150 MHz	15	20	25	30		15	20	25	30		15	20	25	30		
Gain at 3000 MHz	13	18	23	28		13	18	23	28		13	18	23	28		
Noise dB at 1500 MHz	< 10 dB					< 10 dB					< 10 dB					
P1 out dB at 1500 MHz	16 dBm					16 dBm					16 dBm					
Input R. Loss dB typ	typ. 15					typ. 16					typ. 17					
Output R. Loss dB typ	typ. 14					typ. 15					typ. 16					
Power Supply mode, via:	via: OUTPUT PORT					via: OUTPUT PORT					via: EXTERNAL PIN					
D.C. transit to Input	✓					-					-					
22 KHz & 10 MHz transit (no gain)	PASS					BLOCK					BLOCK					
See Price at page N.																

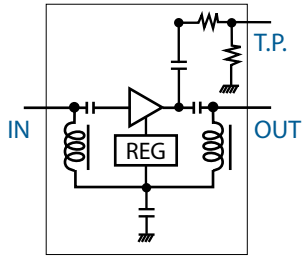
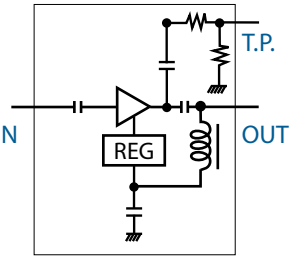
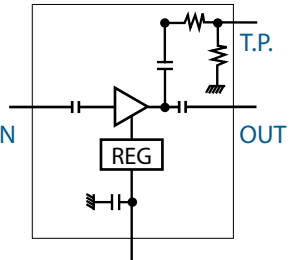
Up to 5 dB Positive Gain Slope – D.C. Option – 22 KHz option – 10 MHz option	Series FFIAM-x-S  SMA (female)SMA (female) AMPLIFIER CODE F FEMALE I INDOOR AM AMPLIFIER -15 dB gain -S SMA CONN. 50 IMPEDANCE DC DC to Input (+22K+10M) EX EXTERNAL PIN for PSU															
Diagram	 PS 9/18 V = via Out port D.C. to IN = Pass 22 KHz = Pass 10 MHz = Pass				 PS 9/18 V = via Out port D.C. to IN = Block 22 KHz = Block 10 MHz = Block				 PS 9/18 V = via External PIN D.C. to IN = Block 22 KHz = Block 10 MHz = Block							
Model	FFIAM-15-S-50-DC				FFIAM-20-S-50-DC				FFIAM-25-S-50-DC				FFIAM-30-S-50-DC			

Up to 5 dB Positive Gain Slope - D.C. Option - 22 KHz option - 10 MHz option	Series FFIAM-x-N  N (female)N (female) AMPLIFIER CODE F F I A M - 1 5 - N 5 0 D C E X F F I A M 15 N 50 D C E X F F I															
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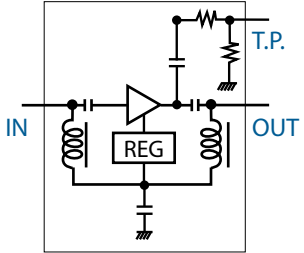
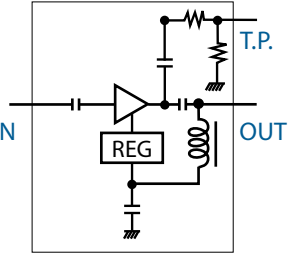
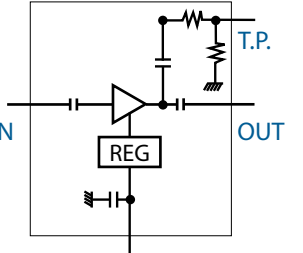
OUTDOOR IN-LINE L-BAND AMPLIFIER, 75 Ω "F" Connector, 50-700-3000 MHz

Up to 5 dB Positive Gain Slope RF Monitor Port D.C. Option 22 KHz option 10 MHz option	Series FFOAM-x-F IP65  AMPLIFIER CODE F F FEMALE O OUTDOOR AM AMPLIFIER -15- dB gain F 75 IMPEDANCE DC DC to Input (+22K+10M) EX EXTERNAL PIN for PSU																																															
Diagram	 PS12/18 V=via Out port D.C. to IN = Pass 22 KHz = Pass 10 MHz = Pass				 PS12/18 V=via Out port D.C. to IN = Block 22 KHz = Block 10 MHz = Block				 PS12/18V=via Ext. PIN D.C. to IN = Block 22 KHz = Block 10 MHz = Block																																							
Model	FFOAM-15-F-75-DC				FFOAM-20-F-75-DC				FFOAM-25-F-75-DC				FFOAM-30-F-75-DC				FFOAM-15-F-75				FFOAM-20-F-75				FFOAM-25-F-75				FFOAM-30-F-75				FFOAM-15-F-75-EX				FFOAM-20-F-75-EX				FFOAM-25-F-75-EX				FFOAM-30-F-75-EX			
Freq. Range MHz	50 - 3000																50 - 3000																50 - 3000															
Gain at 50 MHz	8				13				18				23				8				13				18				23				8				13				18				23			
Gain at 950 MHz	12				17				22				27				12				17				22				27				12				17				22				27			
Gain at 2150 MHz	15				20				25				30				15				20				25				30				15				20				25				30			
Gain at 3000 MHz	13				18				23				28				13				18				23				28				13				18				23				28			
Noise dB at 1500 MHz	< 10 dB																< 10 dB																< 10 dB															
P1 out dB at 1500 MHz	16 dBm																16 dBm																16 dBm															
Input R. Loss dB typ	typ. 15																typ. 16																typ. 17															
Output R. Loss dB typ	typ. 14																typ. 15																typ. 16															
Power Supply mode, via:	via: OUTPUT PORT																via: OUTPUT PORT																via: EXTERNAL PIN															
D.C. transit to Input	✓																-																-															
22 KHz & 10 MHz transit (no gain)	PASS																BLOCK																BLOCK															
See Price at page N.																																																

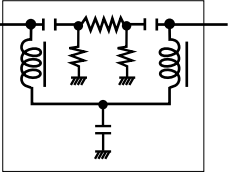
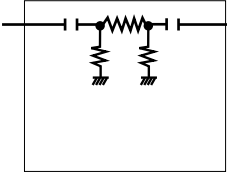
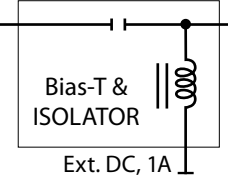
OUTDOOR IN-LINE L-BAND AMPLIFIER, 50 Ω "SMA" Connector, 50-700-3000 MHz

Up to 5 dB Positive Gain Slope RF Monitor Port D.C. Option 22 KHz option 10 MHz option	<i>Series FFOAM-x-S</i>  IP65 AMPLIFIER CODE F F O A M - 1 5 - S 5 0 D C E X FEMALE FEMALE OUTDOOR AMPLIFIER dB gain SMA CONNECTOR IMPEDANCE DC to Input (+22K+10M) EXTERNAL PIN for PSU														
<i>Diagram</i>	 PS12/18 V=via Out port D.C. to IN = Pass 22 KHz = Pass 10 MHz = Pass					 PS12/18 V=via Out port D.C. to IN = Block 22 KHz = Block 10 MHz = Block					 PS12/18V=via Ext.PIN D.C. to IN = Block 22 KHz = Block 10 MHz = Block				
<i>Model</i>	FFOAM-12-S-50-DC FFOAM-22-S-50-DC FFOAM-32-S-50-DC					FFOAM-12-S-50 FFOAM-22-S-50 FFOAM-32-S-50					FFOAM-12-S-50-EX FFOAM-22-S-50-EX FFOAM-32-S-50-EX				
<i>Freq. Range MHz</i>	50 - 3000					50 - 3000					50 - 3000				
<i>Gain at 50 MHz</i>	8 13 18 23					8 13 18 23					8 13 18 23				
<i>Gain at 950 MHz</i>	12 17 22 27					12 17 22 27					12 17 22 27				
<i>Gain at 2150 MHz</i>	15 20 25 30					15 20 25 30					15 20 25 30				
<i>Gain at 3000 MHz</i>	13 18 23 28					13 18 23 28					13 18 23 28				
<i>Noise dB at 1500 MHz</i>	< 10 dB					< 10 dB					< 10 dB				
<i>P1 out dB at 1500 MHz</i>	16 dBm					16 dBm					16 dBm				
<i>Input R. Loss dB typ</i>	typ. 15					typ. 16					typ. 17				
<i>Output R. Loss dB typ</i>	typ. 14					typ. 15					typ. 16				
<i>Power Supply mode, via:</i>	via: OUTPUT PORT					via: OUTPUT PORT					via: EXTERNAL PIN				
<i>D.C. transit to Input</i>	✓					–					–				
<i>22 KHz & 10 MHz transit (no gain)</i>	PASS					BLOCK					BLOCK				
<i>See Price at page N.</i>															

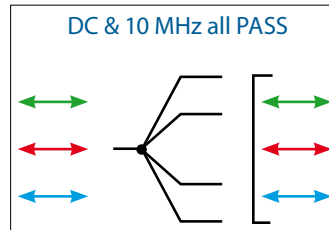
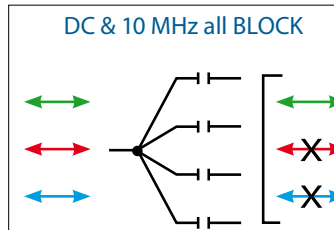
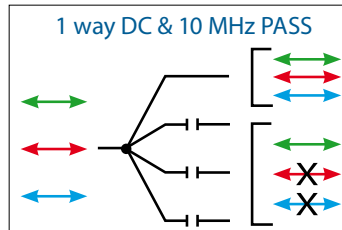
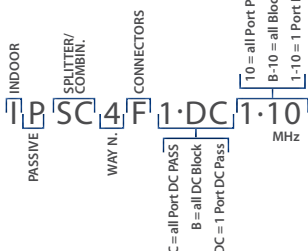
OUTDOOR IN-LINE L-BAND AMPLIFIER, 50 Ω "N" Connector, 50-700-3000 MHz

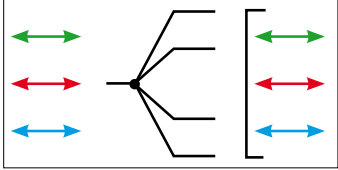
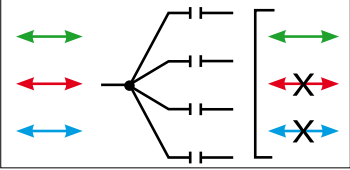
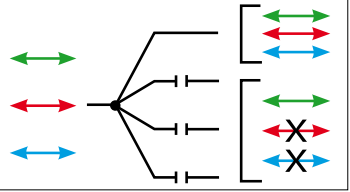
Up to 5 dB Positive Gain Slope RF Monitor Port D.C. Option 22 KHz option 10 MHz option	Series <i>FFOAM-x-N</i>   AMPLIFIER CODE F FEMALE O OUTDOOR AM AMPLIFIER -22- dB gain N N CONNECTOR 50 IMPEDANCE DC DC to Input (+22K+10M) EX EXTERNAL PIN for PSU				
Diagram	 PS12/18 V=via Out port D.C. to IN = Pass 22 KHz = Pass 10 MHz = Pass		 PS12/18 V=via Out port D.C. to IN = Block 22 KHz = Block 10 MHz = Block		 PS12/18V=via Ext.PIN D.C. to IN = Block 22 KHz = Block 10 MHz = Block
Model	FFOAM-12-N-50-DC FFOAM-22-N-50-DC FFOAM-32-N-50-DC		FFOAM-12-N-50 FFOAM-22-N-50 FFOAM-32-N-50		FFOAM-12-N-50-EX FFOAM-22-N-50-EX FFOAM-32-N-50-EX
Freq. Range MHz	50 - 3000		50 - 3000		50 - 3000
Gain at 50 MHz	8 13 18 23		8 13 18 23		8 13 18 23
Gain at 950 MHz	12 17 22 27		12 17 22 27		12 17 22 27
Gain at 2150 MHz	15 20 25 30		15 20 25 30		15 20 25 30
Gain at 3000 MHz	13 18 23 28		13 18 23 28		13 18 23 28
Noise dB at 1500 MHz	< 10 dB		< 10 dB		< 10 dB
P1 out dB at 1500 MHz	16 dBm		16 dBm		16 dBm
Input R. Loss dB typ	typ. 15		typ. 16		typ. 17
Output R. Loss dB typ	typ. 14		typ. 15		typ. 16
Power Supply mode, via:	via: OUTPUT PORT		via: OUTPUT PORT		via: EXTERNAL PIN
D.C. transit to Input	✓		–		–
22 KHz & 10 MHz transit (no gain)	PASS		BLOCK		BLOCK
See Price at page N.					

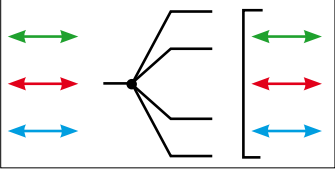
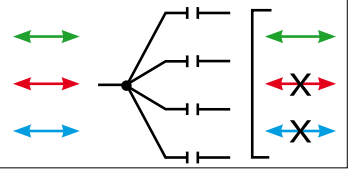
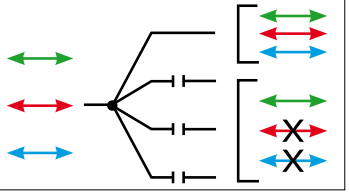
MALE & FEMALE **INDOOR ATTENUATOR, Bias-T & ISOLATOR**, 75 Ω "F" Connector, 50-3000 MHz

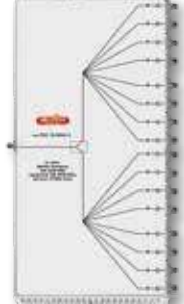
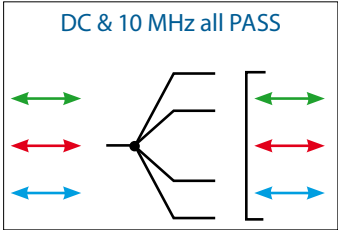
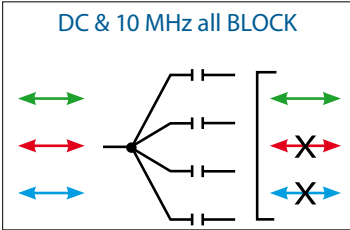
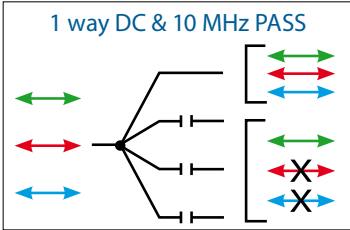
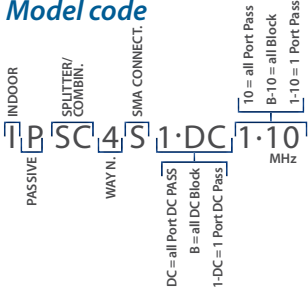
RF SPECIFICATIONS	ATTENUATOR CODE										Series MFIAT-x-F					Bias-T & ISOLATOR CODE				
	MALE FEMALE INDOOR ATTENUATOR 15 dB Atten. 75 Ω F connector D.C. Pass 22 KHz Pass 10 MHz Pass										F (male) F (female)					MALE FEMALE INDOOR ISOLATOR F connector 75 Ω 10 MHz Pass				
Diagram																				
	RF 50-3000 MHz = Pass D.C. = Pass 22 KHz = Pass 10 MHz = Pass										RF 50-3000 MHz = Pass D.C. = Block 22 KHz = Block 10 MHz = Pass					RF 50-3000 MHz = Pass D.C. = Block 22 KHz = Block or Ext. 10 MHz = Pass				
Model	MFIAT3-75-F-DC.22.10					MFIAT6-75-F-DC					MFIAT3-75-F-10					MFII-75-F-10				
Attenuation dB	3	6	10	15	20	3	6	10	15	20	3	6	10	15	20	0,2				
Input R. Loss dB	> 17					> 17					> 18					> 18				
Output R. Loss dB	> 17					> 17					> 18					> 18				
D.C. Pass	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-				
22 KHz Pass	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-	-	-				
10 MHz Pass	✓	✓	✓	✓	✓	-	-	-	-	-	✓	✓	✓	✓	✓	✓				
Phase Balance																				
See Price at page N.																				

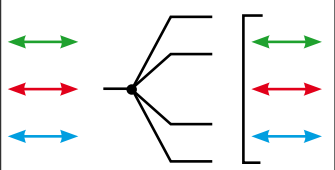
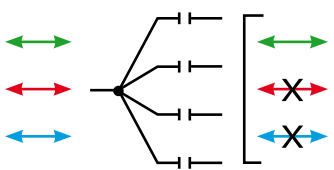
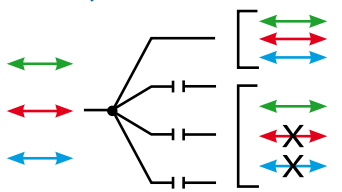
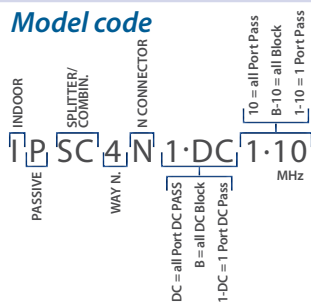
RF SPECIFICATIONS - 50-3000 MHz - D.C. Option - 22 KHz option - 10 MHz option	ATTENUATOR CODE Series <i>FFIAT-x-F</i> Bias-T & ISOLATOR CODE 																			
Diagram	 RF 50-3000 MHz = Pass D.C. = Pass 22 KHz = Pass 10 MHz = Pass					 RF 50-3000 MHz = Pass D.C. = Pass 22 KHz = Block 10 MHz = Block					 RF 50-3000 MHz = Pass D.C. = Block 22 KHz = Block 10 MHz = Pass					 Bias-T & ISOLATOR Ext. DC, 1A RF 50-3000 MHz = Pass D.C. = Block 22 KHz = Block or Ext. 10 MHz = Pass				
Model	FFIAT3-75-F-DC.22.10 FFIAT6-75-F-DC.22.10 FFIAT10-75-F-DC.22.10 FFIAT15-75-F-DC.22.10 FFIAT20-75-F-DC.22.10					FFIAT3-75-F-DC FFIAT6-75-F-DC FFIAT10-75-F-DC FFIAT15-75-F-DC FFIAT20-75-F-DC					FFIAT3-75-F-10 FFIAT6-75-F-10 FFIAT10-75-F-10 FFIAT15-75-F-10 FFIAT20-75-F-10					FFII-75-F-10				
Attenuation dB	3	6	10	15	20	3	6	10	15	20	3	6	10	15	20	0,2				
Input R. Loss dB	> 17					> 17					> 18					> 18				
Output R. Loss dB	> 17					> 17					> 18					> 18				
D.C. Pass	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-				
22 KHz Pass	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-	-	-				
10 MHz Pass	✓	✓	✓	✓	✓	-	-	-	-	-	✓	✓	✓	✓	✓	✓				
Phase Balance	1,5 °					2 °					2,5 °					3 °				
See Price at page N.																				

RF SPECIFICATIONS - 50-3000 MHz - D.C. Option - 10 MHz option	<u>Series IPSC2-F-x</u>  2 ways	<u>Series IPSC4-F-W</u>  4 ways (REF & IF Signals)	<u>Series IPSC4-S-F-x</u>  4 ways	<u>Series IPSC8-S-F-x</u>  8 ways	
4 ways example					
Colors Legend	 Always Passes		 DC Pass  Block		 10 MHz Pass  Block
Model code 	IPSC2-F-DC-10-x IPSC2-F-B-B-x IPSC2-F-1.DC-1.10-x	IPSC4-F-BW	IPSC4-F-DC-10-x IPSC4-F-B-B-x IPSC4-F-1.DC-1.10-x	IPSC8-F-DC-10-x IPSC8-F-B-B-x IPSC8-F-1.DC-1.10-x	
Freq. Range	Extended L-Band 700-3000 MHz		Wide Band 5-3000 MHz (REF & IF Signals)		Extended L-Band 700-3000 MHz
Total dB LOSS at 5-200 MHz	-		9,7		-
Total dB LOSS at 950 MHz	3,2		10,6		6,5
Total dB LOSS at 2150 MHz	3,7		12,1		7,2
Total dB LOSS at 3000 MHz	3,9		14,2		7,8
Isolation, dB typ.	> 23		30 5-200 MHz 20 3000 MHz		> 23
Phase Balance					
Input R. Loss, dB typ.	typ. 20		typ. 18		typ. 19
Output R. Loss, dB typ.	typ. 19		typ. 18		typ. 20
D.C. Pass (all ports)	✓				✓
D.C. Block (all ports)		✓	✓		✓
1 Port D.C. Pass			✓		✓
10 MHz Pass (all Ports)	✓		✓		✓
10 MHz Block (all ports)		✓		✓	✓
1 Port 10 MHz Pass			✓		✓
See Price at page N.					

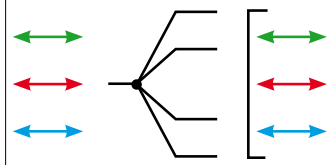
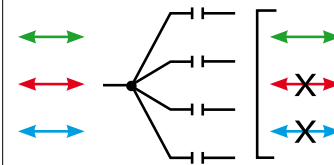
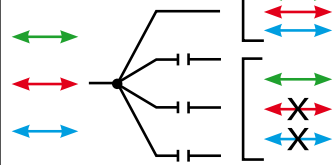
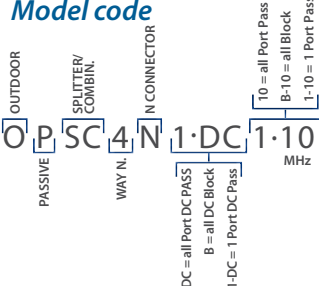
RF SPECIFICATIONS				
	Series IPSC2-B-x	Series IPSC4-B-W	Series IPSC4-B-x	Series IPSC8-B-x
50-3000 MHz				
D.C. Option	2 ways	4 ways (REF & IF Signals)	4 ways	8 ways
10 MHz option				
4 ways example	DC & 10 MHz all PASS 			
	DC & 10 MHz all BLOCK 			
Colors Legend	1 way DC & 10 MHz PASS 			
	RF Always Passes DC Pass Block 10 MHz Pass Block			
Model code	INDOOR PASSIVE SPLITTER/COMBIN. BNC CONNECT. 75 Ω WAY N. 1 5C 4 B7 1DC 110 DC=all Port DC Pass B=all DC Block 1-DC=1 Port DC Pass 10=all Port Pass B-10=all Block 1-10=1 Port Pass MHz			
	IPSC2-B7-DC-10-x	IPSC2-B7-B-B-x	IPSC2-B7-1.DC-1.10-x	IPSC4-B7-BW
Freq. Range	Extended L-Band 700-3000 MHz			
	Wide Band 5-3000 MHz (REF & IF Signals)			
Total dB LOSS at 5-200 MHz	9,7			
Total dB LOSS at 950 MHz	3,2			
Total dB LOSS at 2150 MHz	3,7			
Total dB LOSS at 3000 MHz	3,9			
Isolation dB typ.	> 23			
Phase Balance	30 20 5-200 MHz 3000 MHz			
Input R. Loss, dB typ.	typ. 20			
Output R. Loss, dB typ.	typ. 19			
D.C. Pass (all ports)	✓			
D.C. Block (all ports)	✓			
1 Port D.C. Pass	✓			
10 MHz Pass (all Ports)	✓			
10 MHz Block (all ports)	✓			
1 Port 10 MHz Pass	✓			
See Price at page N.				

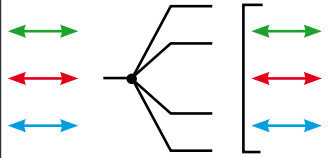
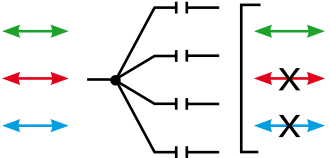
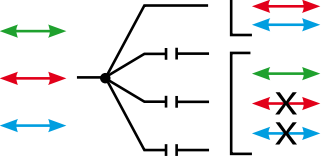
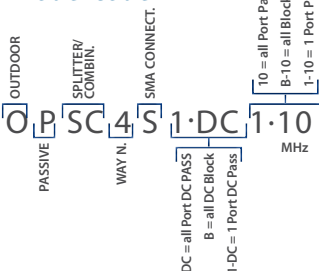
RF SPECIFICATIONS				
	Series IPSC2-B-x	Series IPSC4-B-W	Series IPSC4-B-x	Series IPSC8-B-x
– 50-3000 MHz – D.C. Option – 10 MHz option	 2 ways	 4 ways (REF & IF Signals)	 4 ways	 8 ways
4 ways example	DC & 10 MHz all PASS 			
	DC & 10 MHz all BLOCK 			
Colors Legend	1 way DC & 10 MHz PASS 			
	 RF Always Passes  DC Pass  Block  10 MHz Pass  Block			
Model code	INDOOR PASSIVE SPLITTER/COMBIN. BNC CONNECT. 50 Ω WAY N. 1DC 110 MHz DC = all Port DC Pass B = all DC Block 1-DC = 1 Port DC Pass 1-10 = 1 Port Pass 1-10 = all Port Pass B-10 = all Block			
	IPSC2-B5-DC-10-x	IPSC2-B5-B-B-x	IPSC2-B5-1.DC-1.10-x	IPSC4-B5-BW
Freq. Range	Extended L-Band 700-3000 MHz	Wide Band 5-3000 MHz (REF & IF Signals)	Extended L-Band 700-3000 MHz	Extended L-Band 700-3000 MHz
Total dB LOSS at 5-200 MHz	–	9,7	–	–
Total dB LOSS at 950 MHz	3,2	10,6	6,5	9,8
Total dB LOSS at 2150 MHz	3,7	12,1	7,2	10,6
Total dB LOSS at 3000 MHz	3,9	14,2	7,8	11,9
Isolation dB typ.	> 23	30 5-200 MHz 20 3000 MHz	> 23	> 23
Phase Balance				
Input R. Loss, dB typ.	typ. 20	typ. 18	typ. 19	typ. 17
Output R. Loss, dB typ.	typ. 19	typ. 18	typ. 20	typ. 19
D.C. Pass (all ports)	✓		✓	✓
D.C. Block (all ports)		✓	✓	✓
1 Port D.C. Pass		✓	✓	✓
10 MHz Pass (all Ports)	✓	✓	✓	✓
10 MHz Block (all ports)	✓		✓	✓
1 Port 10 MHz Pass		✓	✓	✓
See Price at page N.				

RF SPECIFICATIONS	Series IPSC2-S-x	Series IPSC4-S-x	Series IPSC8-S-x	Series IPSC16-S-x
- D.C. Options - 10 MHz options				
	2 ways	4 ways	8 ways	16 ways
4 ways example				
				
Model code 	IPSC2-S-DC-10-x IPSC2-S-B-B-x IPSC2-S-1.DC-1.10-x	IPSC4-S-DC-10-x IPSC4-S-B-B-x IPSC4-S-1.DC-1.10-x	IPSC8-S-DC-10-x IPSC8-S-B-B-x IPSC8-S-1.DC-1.10-x	IPSC16-S-DC-10-x IPSC16-S-B-B-x IPSC16-S-1.DC-1.10-x
Freq. Range	Extended L-Band 700-3000 MHz	Extended L-Band 700-3000 MHz	Extended L-Band 700-3000 MHz	Extended L-Band 700-3000 MHz
Total LOSS at 5-200 MHz	-	-	-	-
Total LOSS at 950 MHz	3,3	6,5	9,7	13,5
Total LOSS at 2150 MHz	3,4	6,7	10,2	14
Total LOSS at 3000 MHz	3,7	6,8	10,9	15
Isolation dB typ.	> 23	> 23	> 23	> 20
Phase Balance				
Input R. Loss, dB typ.	typ. 19	typ. 19	typ. 18	typ. 16
Output R. Loss, dB typ.	typ. 20	typ. 20	typ. 20	typ. 16
D.C. Pass (all ports)	✓	✓	✓	✓
D.C. Block (all ports)	✓	✓	✓	✓
1 Port D.C. Pass	✓	✓	✓	✓
10 MHz Pass (all Ports)	✓	✓	✓	✓
10 MHz Block (all ports)	✓	✓	✓	✓
1 Port 10 MHz Pass	✓	✓	✓	✓
See Price at page N.				

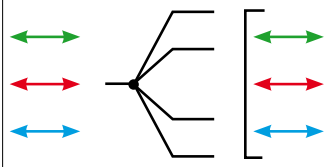
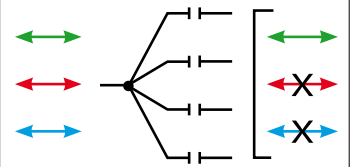
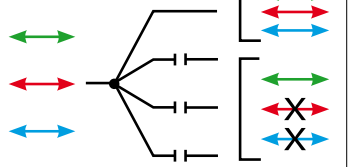
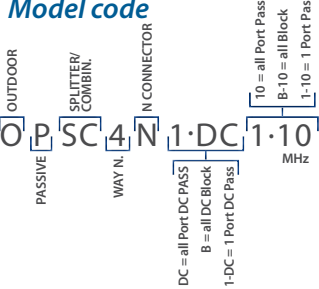
RF SPECIFICATIONS D.C. Options 10 MHz options	Series IPSC2-N-x  2 ways	Series IPSC4-N-x  4 ways	Series IPSC8-N-x  8 ways
4 ways example	DC & 10 MHz all PASS 	DC & 10 MHz all BLOCK 	1 way DC & 10 MHz PASS 
Colors Legend	RF Always Passes 	DC Pass Block  	10 MHz Pass Block  
Model code 	IPSC2-N-DC-10-x IPSC2-N-B-B-x IPSC2-N-1.DC-1.10-x	IPSC4-N-DC-10-x IPSC4-N-B-B-x IPSC4-N-1.DC-1.10-x	IPSC8-N-DC-10-x IPSC8-N-B-B-x IPSC8-N-1.DC-1.10-x
Freq. Range	Extended L-Band 700-3000 MHz	Extended L-Band 700-3000 MHz	Extended L-Band 700-3000 MHz
Total LOSS at 5-200 MHz	-	-	-
Total LOSS at 950 MHz	3,3	6,5	9,7
Total LOSS at 2150 MHz	3,4	6,7	10,2
Total LOSS at 3000 MHz	3,7	6,8	10,9
Isolation dB typ.	> 23	> 23	> 23
Phase Balance			
Input R. Loss, dB typ.	typ. 19	typ. 19	typ. 18
Output R. Loss, dB typ.	typ. 20	typ. 20	typ. 20
D.C. Pass (all ports)	☒	☒	☒
D.C. Block (all ports)	☒	☒	☒
1 Port D.C. Pass	☒	☒	☒
10 MHz Pass (all Ports)	☒	☒	☒
10 MHz Block (all ports)	☒	☒	☒
1 Port 10 MHz Pass	☒	☒	☒
See Price at page N.			

OUTDOOR IP65 PASSIVE SPLITTER/COMBINER, 75 Ω "F" Connector, 5-700-3000 MHz

 IP65 RF SPECIFICATIONS — D.C. Option — 10 MHz option	Series OPSC2-F-x  2 ways	Series OPSC4-F-W  4 ways (REF & IF Signals)	Series OPSC4-F-x  4 ways	Series OPSC8-F-x  8 ways
4 ways example	DC & 10 MHz all PASS 	DC & 10 MHz all BLOCK 	1 way DC & 10 MHz PASS 	
Colors Legend	RF Always Passes	DC Pass Block	10 MHz Pass Block	
Model code  OUTDOOR PASSIVE SPLITTER/ COMBINER N CONNECTOR DC = all Port DC Pass B = all DC Block 1-DC = 1 Port DC Pass 10 = all Port Pass B-10 = all Block 1-10 = 1 Port Pass MHz	OPSC2-F-DC-10-x OPSC2-F-B-B-x OPSC2-F-1.DC-1.10-x	OPSC4-F-BW	OPSC4-F-DC-10-x OPSC4-F-B-B-x OPSC4-F-1.DC-1.10-x	OPSC8-F-DC-10-x OPSC8-F-B-B-x OPSC8-F-1.DC-1.10-x
Freq. Range MHz	Extended L-Band 700-3000 MHz	Wide Band 5-3000 MHz (REF & IF Signals)	Extended L-Band 700-3000 MHz	Extended L-Band 700-3000 MHz
Total LOSS at 5-200 MHz	—	9,7	—	—
Total LOSS at 950 MHz	3,2	10,6	6,5	9,8
Total LOSS at 2150 MHz	3,7	12,1	7,2	10,6
Total LOSS at 3000 MHz	3,9	14,2	7,8	11,9
Isolation dB typ.	> 20	30 5-200 MHz 20 3000 MHz	> 23	> 23
Phase Balance				
Input R. Loss, dB typ.	typ. 20	typ. 18	typ. 19	typ. 17
Output R. Loss, dB typ.	typ. 19	typ. 18	typ. 20	typ. 19
D.C. Pass (all ports)	✓		✓	✓
D.C. Block (all ports)	✓	✓	✓	✓
1 Port D.C. Pass	✓		✓	✓
10 MHz Pass (all Ports)	✓	✓	✓	✓
10 MHz Block (all ports)	✓		✓	✓
1 Port 10 MHz Pass	✓		✓	✓
See Price at page N.				

 IP65 RF SPECIFICATIONS – D.C. Option – 10 MHz option	Series OPSC2-S-x  2 ways	Series OPSC4-S-x  4 ways	Series OPSC8-S-x  8 ways
4 ways example	DC & 10 MHz all PASS 	DC & 10 MHz all BLOCK 	1 way DC & 10 MHz PASS 
Colors Legend	 RF Always Passes	 DC  Block	 10 MHz  Block
Model code  OUTDOOR PASSIVE SPLITTER/COMBINER, SMA CONNECT. OP SC 4 S 1 DC 1 10 DC = all Port DC Pass B = all DC Block 1-DC = 1 Port DC Pass 10 = all Port Pass B-10 = all Block 1-10 = 1 Port Pass MHz	OPSC2-S-DC-10-x OPSC2-S-B-B-x OPSC2-S-1.DC-1.10-x	OPSC4-S-DC-10-x OPSC4-S-B-B-x OPSC4-S-1.DC-1.10-x	OPSC8-S-DC-10-x OPSC8-S-B-B-x OPSC8-S-1.DC-1.10-x
Freq. Range	Extended L-Band 700-3000 MHz	Extended L-Band 700-3000 MHz	Extended L-Band 700-3000 MHz
Total LOSS at 5-200 MHz	–	–	–
Total LOSS at 950 MHz	3,3	6,5	9,7
Total LOSS at 2150 MHz	3,4	6,7	10,2
Total LOSS at 3000 MHz	3,7	6,8	10,9
Isolation dB typ.	> 23	> 23	> 23
Phase Balance			
Input R. Loss, dB typ.	typ. 19	typ. 19	typ. 18
Output R. Loss, dB typ.	typ. 20	typ. 20	typ. 20
D.C. Pass (all ports)	✓	✓	✓
D.C. Block (all ports)	✓	✓	✓
1 Port D.C. Pass	✓	✓	✓
10 MHz Pass (all Ports)	✓	✓	✓
10 MHz Block (all ports)	✓	✓	✓
1 Port 10 MHz Pass	✓	✓	✓
See Price at page N.			

OUTDOOR IP65 PASSIVE SPLITTER/COMBINER, 50 Ω "N" Connector, 700-3000 MHz

 IP65 RF SPECIFICATIONS — D.C. Option — 10 MHz option	<u>Series OPSC2-N-x</u>  2 ways	<u>Series OPSC4-N-x</u>  4 ways	<u>Series OPSC8-N-x</u>  8 ways	
4 ways example	DC & 10 MHz all PASS 	DC & 10 MHz all BLOCK 	1 way DC & 10 MHz PASS 	
Colors Legend	RF ↔ Always Passes	DC ↔ Pass ✗ Block	10 MHz ↔ Pass ✗ Block	
Model code 	OPSC2-N-DC-10-X OPSC2-N-B-B-X OPSC2-N-1-DC-1.10-X	OPSC4-N-DC-10-X OPSC4-N-B-B-X OPSC4-N-1-DC-1.10-X	OPSC8-N-DC-10-X OPSC8-N-B-B-X OPSC8-N-1-DC-1.10-X	
Freq. Range	Extended L-Band 700-3000 MHz	Extended L-Band 700-3000 MHz	Extended L-Band 700-3000 MHz	
Total LOSS at 5-200 MHz	—	—	—	
Total LOSS at 950 MHz	3,3	6,5	9,7	
Total LOSS at 2150 MHz	3,4	6,7	10,2	
Total LOSS at 3000 MHz	3,7	6,8	10,9	
Isolation dB typ.	> 23	> 23	> 23	
Phase Balance				
Input R. Loss, dB typ.	typ. 19	typ. 19	typ. 19	
Output R. Loss, dB typ.	typ. 20	typ. 20	typ. 20	
D.C. Pass (all ports)	✓	✓	✓	
D.C. Block (all ports)	✓	✓	✓	
1 Port D.C. Pass	✓	✓	✓	
10 MHz Pass (all Ports)	✓	✓	✓	
10 MHz Block (all ports)	✓	✓	✓	
1 Port 10 MHz Pass	✓	✓	✓	
See Price at page N.				

- **Series MSC20-2-F-x** 700-3000 MHz

1U Rack panel contains:

- N. 20 of 2 ways Extended L-Band Splitter/Combiner 75 Ω "F" Connector **mod. IPSC2-F-x** *.
- The single Splitter can be chosen from our standard models, with or without DC & 10 MHz transit, depending on your needs.



* For the splitter specifications see related data sheet.

- **Series MSC10-4-F-x** 700-3000 MHz

1U Rack panel contains:

- N. 10 of 4 ways Extended L-Band Splitter/Combiner 75 Ω "F" Connector **mod. IPSC4-F-x** *.
- The single Splitter can be chosen from our standard models, with or without DC & 10 MHz transit, depending on your needs.



* For the splitter specifications see related data sheet.

- **Series MSC20-4-F-x** 700-3000 MHz

2U Rack panel contains:

- N. 20 of 4 ways Extended L-Band Splitter/Combiner 75 Ω "F" Connector **mod. IPSC4-F-x** *.
- The single Splitter can be chosen from our standard models, with or without DC & 10 MHz transit, depending on your needs.



* For the splitter specifications see related data sheet.

- **Series MSC20-2-B7-x** 700-3000 MHz



1U Rack panel contains:

- N. 20 of 2 ways Extended L-Band Splitter/Combiner 75 Ω "F" Connector **mod. IPSC2-B7-x ***.
- The single Splitter can be chosen from our standard models, with or without DC & 10 MHz transit, depending on your needs.

* For the splitter specifications see related data sheet.

- **Series MSC10-4-B7-x** 700-3000 MHz



1U Rack panel contains:

- N. 10 of 4 ways Extended L-Band Splitter/Combiner 75 Ω "F" Connector **mod. IPSC4-B7-x ***.
- The single Splitter can be chosen from our standard models, with or without DC & 10 MHz transit, depending on your needs.

* For the splitter specifications see related data sheet.

- **Series MSC20-4-B7-x** 700-3000 MHz



2U Rack panel contains:

- N. 20 of 4 ways Extended L-Band Splitter/Combiner 75 Ω "F" Connector **mod. IPSC4-B7-x ***.
- The single Splitter can be chosen from our standard models, with or without DC & 10 MHz transit, depending on your needs.

* For the splitter specifications see related data sheet.

NOTES

A series of horizontal dashed lines for taking notes.

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HOW TO FIND US:

in Sirmione, Lake Garda, Italy.

Situated in one of the most beautiful tourist locations in Italy, on Lake Garda, ROVER can be easily reached from Milan, Bergamo, Verona and Venice airports.

Lake Garda is in the north of Italy, near the borders of Austria, Switzerland and Germany and is in the foothills of the Alps.

Lake Garda has a micro-climate, tropical in summer and temperate in winter, and where palms, olives, lemons, oranges, bouganville and even banana trees can grow.

Exploited by the Romans as long ago as 350 a.C., it is now one of the most important lakeside, spa and tourist resorts in Europe. Please find below photographs of some of the most important tourist attractions in the area.

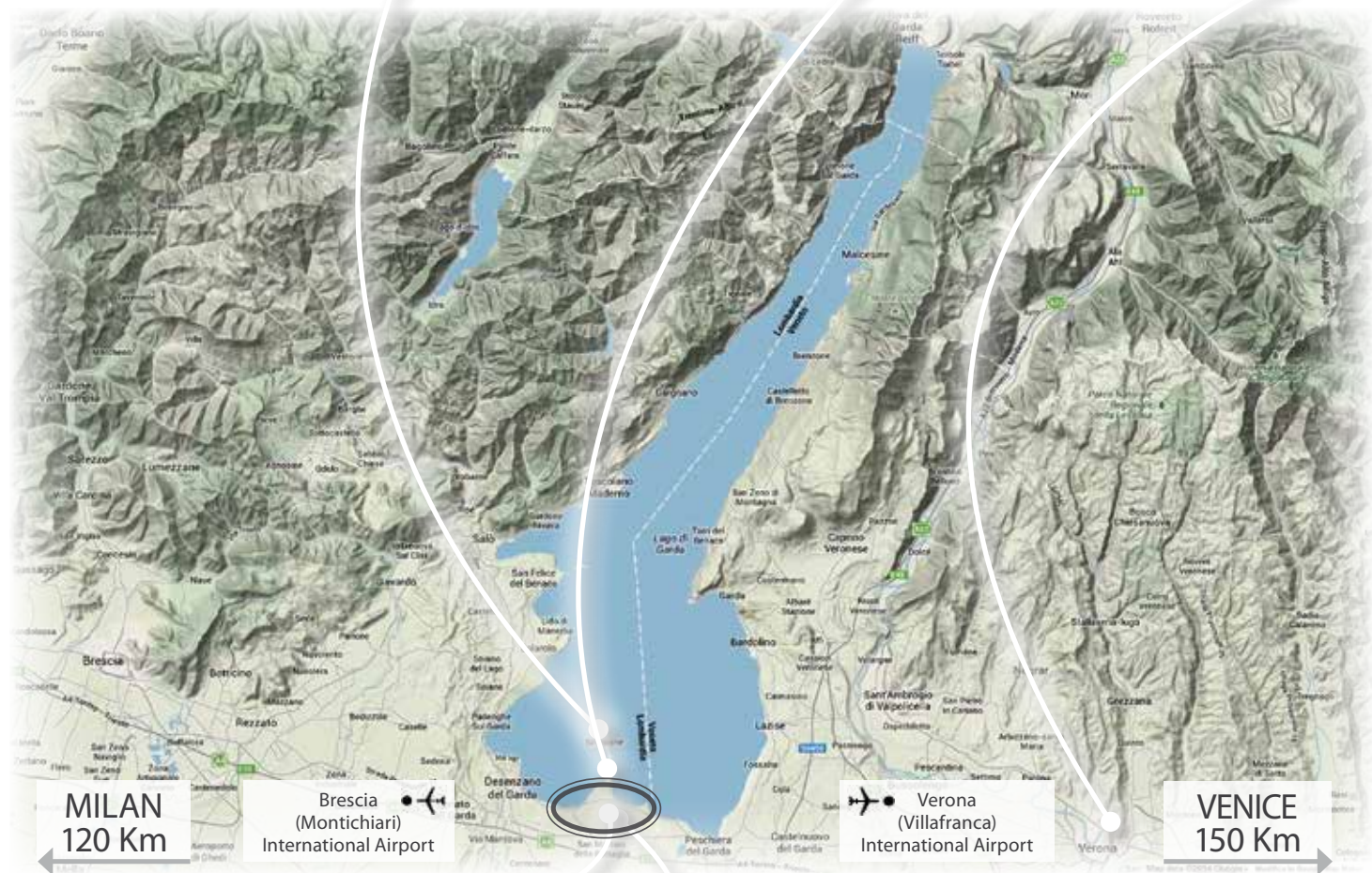
Catullus roman ruins, 350 b.C.



Sirmione Castle, 1.500 a.C.



Verona, roman Arena 120 b.C.



GPS COORDINATES:
45° 27' 47"N, 10° 36' 24"E



ROVER Goods entrance & production



ROVER Laboratories and offices

CERTIFICATES N°
1263 ISO 9001
1264 ISO 14001
1265 ISO 45001

