

...designed for perfect signals

4-way Active L-Band Hybrid Splitter/Combiner TX/RX System

The LSCX414 is a 4-way active hybrid L-Band splitter/combiner at a size of a 1RU/19" rack mount chassis only. The unit is especially designed in particular for VSAT terminals, SNG/DSNG operations but also for other satellite uplink/downlink applications such as small teleports e.g. to interconnect a corresponding number of satellite modems or other devices with it.

The 1:4 active splitter at the RX path supports switchable LNB-supply (ON/OFF, 18VDC) while the 4:1 combiner at the TX path allows DC-supply to a BUC (ON/OFF, 24VDC or 48VDC selectable) (Option). Configuration and monitoring of the DC supply for the LNB and BUC can be done via Ethernet-Interface (WebGUI, SNMP).

Additionally, the unit is equipped with an external 10MHz port and optionally with an internal 10MHz reference signal (available at common ports). Coloured status LED's are displaying the health status of power supplies, the splitter and combiner modules as well as DC supply of LNB and BUC.

An OLED display for local control and configuration and 1:1 redundant power supply are optionally available.

This LSCX414 is characterized by superior RF performance, high density and beneficial functionalities. It comes with 50Ohm SMA(f) or 75Ohm F(f) connectors (other connectors are available upon request).



FEATURES & BENEFITS

- ▶ Compact 4-way Splitter & Combiner TX/RX system
- ▶ Space saving 1RU/19" rack mount design
- ▶ Extended L-Band frequency range 850 – 2450MHz
- ▶ Switchable LNB-supply (ON/OFF, 18V)
- ▶ Selectable BUC-supply (ON/OFF, 24V or 48V) (Option)
- ▶ External 10MHz reference port
- ▶ Internal 10MHz reference signal (Option)

- ▶ Front panel coloured status LED's displaying health status of splitter and combiner module, power supplies, LNB-supply, BUC-supply and 10MHz
- ▶ Local monitoring via front panel coloured status LED's or via OLED display (Option)
- ▶ Remote configuration via Ethernet-Interface (WebGUI, SNMP)
- ▶ 1:1 redundant dual power supply (Option)

TECHNICAL SPECIFICATIONS

Dimensions:	1RU/19" rack mount
Power Supply:	85 – 230V, 50/60Hz, optionally 1:1 redundant, not swappable
Power Consumption:	<10W
Chassis Assembly:	1.4 active Splitter (RX path), 4:1 active Combiner (TX path)
Frequency Range:	850 – 2450MHz (extended L-Band), 850 – 2700MHz*
Input/Output Connectors:	50Ohm SMA(f), 75Ohm F(f)
Max. RF Input Power:	+13dBm (no damage), +16dB max.
Input/Output Return Loss:	14dB typ.
Insertion Loss:	0dB ±0,5dB typ.
Frequency Response:	±0,5dB typ., ±1,0dB max.
Noise Figure:	<4dB @ Splitter, < 11dB @ Combiner
Spurious Free Dynamic Range:	< -76dBm
IMA3:	-40dBc typ. @ Splitter, -56dBc typ. @ Combiner
1dB Compression Point:	+12dBm @ Splitter, +16dBm @ Combiner
LNB-Supply via Splitter:	Switchable ON/OFF 18VDC, 400mA
BUC-Supply via Combiner:	Switchable ON/OFF, selectable 24VDC or 48VDC, 4A, fused* optionally
10MHz Source:	External via rear panel 50Ohm BNC(f) or 50Ohm SMA(f), internal* optionally
10MHz Signal Availability:	Always available via common port at splitter and combiner, manual selectable external or internal*
RF-Power Monitoring:	60dB Dynamic Range Splitter and Combiner
Remote Access/Configuration:	100Mbit Ethernet-Interface (WebGUI, SNMPv2c)
Status LED's:	Splitter, Combiner, DC supply, Power Supply, 10MHz
MTBF/MTTR:	>400kHrs at 25°C / 24 hours
Operating Temperature:	0°C to 45°C
Storage Temperature:	-10°C to 70°C
Humidity:	90%, non-condensing
RoHS:	Compliant

*Option

10MHz Internal Source (Option)

Frequency:	10MHz ±1ppm
Signal Type and Level:	Sinewave, Level 0dBm
SFDR:	Harmonic 2nd < -60dBc, 3rd < -55dBc, All other spurious < -65dBc
Frequency Stability:	±1 10e-8 (0 to 60°C)
Phase Noise:	-85dBc@1Hz, -115dBc@10Hz, -140dBc@100Hz, -150dBc@1kHz, -155dBc @ 10kHz

ORDER INFORMATION

Type	Type No.:	Short Description
LSCX414-75F	9001092	4-way active L-Band Splitter/Combiner TX/RX System, 75Ohm F(f), 1RU/19" rack mount
LSCX414-50S	9001093	4-way active L-Band Splitter/Combiner TX/RX System, 50Ohm SMA(f), 1RU/19" rack mount

OPTIONS

Type	Type No.:	Short Description
LSCX414-PSU	9001094	Option 1:1 Redundant Power Supply
LSCX414-Int10MHz	9001095	Internal 10MHz Reference Module
LSCX414-LC	9001096	Frontside OLED Display with keypad for local configuration (instead of LED's)
LSCX414-24V-48V	9001415	BUC Power Supply 24/48V 4A, Fan Unit included