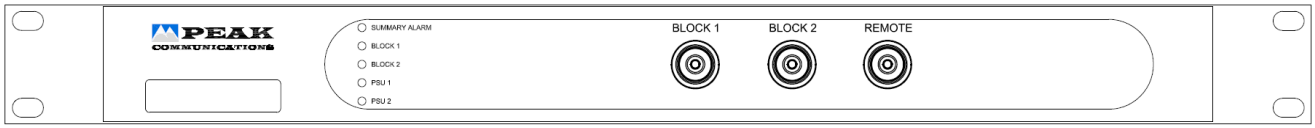
D502

Dual-channel LNB driver unit with remote control



The **D502** dual-channel driver unit is designed to supply DC power and/ or a reference frequency to a low noise block (LNB). These units are ideal in the situation where the connecting modulator cannot supply a suitable external DC supply or when the modulator reference frequency is either unavailable or has insufficient stability for the application. The driver units are 19-inch rack mounted and are powered from a wide input range AC supply.

The **D502** unit is designed for use with one or two LNB's. These units can supply single or dual range (voltage switching) up to +18VDC at typically 500mA and incorporate a locking reference signal of typically 10MHz. The supply to the LNB is via the L-Band connection and comprises the DC, reference and the received L-Band signal.

Peak Features

- Dual feed's supporting two LNB's
- Optional back-up reference drive generation & external reference input with automatic detection
- DC drive with current sensing and user settable alarm levels
- DC drive of typically +13VDC/ +18VDC, dual range 'voltage switching', with front panel controls
- Redundant power supplies with dual mains input, as standard
- Ethernet remote control with embedded web server & supporting SNMP, as standard
- Optional internally generated 22kHz tone oscillator for range switching

D502 – Typical specification;

L-Band interface specification

L-Band frequency	800 - 2400MHz
L-Band connection	N-type (f), 50Ohm
Insertion loss	≤1dB
Maximum input	+16dBm
Return loss (Input)	13dB minimum
Return loss (Output)	13dB minimum

DC drive generation

Drive	Fed to LNB(s) on L-Band co-axial cable
Voltage	Switched voltage +13VDC/ +18VDC fed via L-Band for dual range LNB's

Notes; includes front panel push switch to cycle between states.

Current	500mA typ. (for higher please consult the factory)

22kHz tone generation (Option 10)

22kHz tone at 0.5V peak to peak, selectable on /off

Reference drive generation (Option 2)

Drive	10MHz fed to the LNB(s) on L-Band co-axial cable

Note; for other frequencies (5, 50 & 100MHz), please consult factory

Power	0dBm +/-3dB
Stability	$<5x10^{-10}$ over 1s, $<5x10^{-9}$ per day
Ageing	$<5 \times 10^{-7}$ per year
Temp stability	$<5 \times 10^{-8}$ over 0 to 50^0C

High stability (Option 3)

Stability	$<2x10^{-12}$ over 1s, $<2x10^{-10}$ per day
Ageing	$<2 \times 10^{-8}$ per year
Temp stability	$<2 \times 10^{-9}$ over 0 to 50^0C

External reference input (Option 4)

Offered with automatic detection & locking facility (only available with option 2).

Frequency	10MHz (5MHz factory settable)
Level	0dBm ±5dB
Connector	SMA (f), 50Ohm

External reference pass-through (Option 4c)

External reference input via rear panel discrete connection, passed through to LNB's via the L-Band co-axial cable (no internal back-up reference).

Frequency	10MHz (5MHz factory settable)
Level	0dBm ±5dB

Note; internal throughput loss typically 4dB.

Connector	SMA (f), 50Ohm

Mechanical

Width	19" standard rack mountable
Height	1U (1.75")
Depth	250mm (10"), plus connectors
Construction	Aluminium chassis
Weight	4kgs (8.8lbs)

Environmental

Operating temp.	0°C to +50°C
EMC	EN 55022, part B & EN 50082-1
Safety	EN 60950

Power supply (2off redundant)

Voltage	90-264VAC
Frequency	47-63Hz
Total power	20 Watts typ., depending upon DC drive option
Redundancy	Provides a redundant power supply

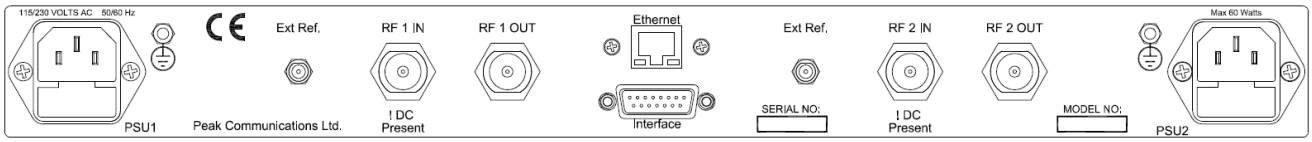
Control system interface

Remote control	Ethernet; embedded web server & SNMP network management support
Discrete 'alarms interface'	PSU failure internal and/or external reference failure LO lock failure
Alarm inputs	Summary alarm input via D-Type connections

Options

2) LNB reference drive generation (10MHz) on the L-Band
3) High stability internal reference generator
4) External reference input (only available with option 2)
4c) External reference input passed-through to LNB's
10) Internally generated 22kHz tone oscillator

Rear panel view (sample)



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