D400 and D600

BUC/ BDC/ LNB driver units

The **D400** & **D600** driver units are flexible and configurable to customer specific requirements. They are designed to supply DC power and/ or a reference frequency to a remote mounted block down converter (BDC), low noise block (LNB) or block up converter (BUC). 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 **D400** unit is designed for use with a **BDC or LNB.** These units can supply up to 24VDC at typically 500mA and can incorporate a locking reference frequency of typically 10MHz. The supply to the BDC/ LNB is a composite of DC, reference and the received L-Band signal. The output of the D400 unit is the received L-Band signal.

The **D600** units are designed for use with a **BUC.** These units can supply up to 24VDC at typically 500mA and can incorporate a locking reference frequency of typically 10MHz. The input of the D600 unit is the L-Band signal to be transmitted. The supply to the BUC is a composite of DC, reference and the L-Band signal to be transmitted.

Peak Features

- Optional multiple L-Band inputs on the **D400** or outputs on the **D600**
- Optional high stability reference system
- Optional DC drive of typically 13-24VDC, dual range ‘voltage switching’ available
- Optional redundant power supplies with dual mains input
- Full alarm monitoring

D400, D600 – Typical specification;

L-Band interface specification

Note; applicable with options 1, 1b & 2

L-Band frequency	900 - 2150MHz
L-Band connection	N-type (f), 50Ohm
Option 5a;	dual L-Band channels (additional channel)
Option 5b;	quad L-Band channels (additional 3off channels)
Insertion loss	2dB

Note; for amplification options please consult the factory (Option 6)

Maximum input	+16dBm

DC drive generation (Option 1)

Drive	Fed to BUC/BDC/LNB on L-Band co-axial cable
Option 1a;	Fed via a separate, 9-way, D-Type connector
Voltage	+13 to +24VDC (factory settable, please specify on order)
Current	750mA typ. (for higher please consult the factory)
Option 1b;	+27VDC @ 1A, suitable for multi-range/ band BUC & BDC units
Option 1c;	Switched voltage +13VDC/ +18VDC fed via L-Band for dual range LNB's

Notes; Opt1c includes front panel +13V/off/+18V toggle switch. Rear panel DIP and front panel key switches available.

Option 1d;	+24VDC @ 2.5A, suitable for higher power BUC drive.
Option 1e;	+48VDC @ 4A, suitable for higher power BUC drive.

Reference drive generation (Option 2)

Drive	10MHz fed to BUC/BDC/LNB 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)

with automatic detection

Note; only available with option 2

Frequency	10MHz (5MHz factory settable)
Level	0dBm ±3dB
Connector	SMA (f), 50Ohm
Option 4b;	Input via L-Band (from Modem)

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 with Option 7)

Voltage	90-264VAC
Frequency	47-63Hz
Total power	20 Watts typ., depending upon DC drive option
Redundancy (Option 7)	Provides a redundant power supply configuration with separate prime power inputs

Control system interface

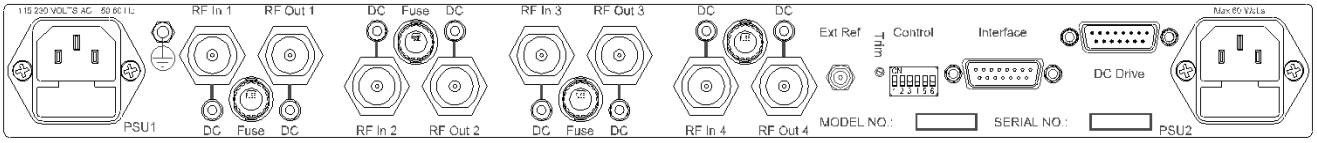
Alarms	PSU failure LO lock failure (with Option 2)

Options

1) +17 to +24VDC@750mA drive on L-Band
1a) DC drive via separate connector
1b) +27VDC@1A drive on L-Band
1c) +13/ +18VDC switched drive on L-Band, for dual range LNB's
1d) +24VDC@2.5A drive on L-Band
1e) +48VDC@4A drive on L-Band
2) Reference drive generator (10MHz) on L-Band
3) High stability internal reference generator
4) External reference input via separate connection
4b) External reference input via L-Band (from Modem)
5a) Dual TX/RX L-Band interfaces
5b) Quad TX/RX L-Band interfaces
6) L-Band amplification (please consult the factory, stating the requirement)
7) Redundant power supplies

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

Rear panel view (typical showing quad channel version and redundant PSU's)



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