

## D400 and D600 series BUC/ BDC/ LNB driver units



<b>D401, D601</b>	single-channel units
<b>D402, D602</b>	dual-channel units
<b>D403, D603</b>	triple-channel units
<b>D404, D604</b>	quad-channel units

The **D400** & **D600** series driver units are available in up to quad-channel in 1RU and are 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** series units are designed for use with **BDC's or LNB's**. 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** series units are designed for use with **BUC's**. 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

-  Available in up to 4-channels in 1RU
-  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 series – Typical specification;

### L-Band interface specification

L-Band frequency 900 - 2150MHz  
L-Band connection N-type (f), 50Ohm  
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  $<5 \times 10^{-10}$  over 1s,  $<5 \times 10^{-9}$  per day  
Ageing  $<5 \times 10^{-7}$  per year  
Temp stability  $<5 \times 10^{-8}$  over 0 to 50°C

#### High stability (Option 3)

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

### External reference input (Option 4) with automatic detection

Note; only available with option 2

Frequency 10MHz (5MHz factory settable)  
Level 0dBm  $\pm 3$ dB  
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 Provides a redundant power supply configuration with separate prime power inputs (Option 7)

### 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)
- 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 with redundant PSU's)

