

# L-Band IF transceiver

## 6700 and 6900 series

Codan's L-Band IF input 6700 series C-Band and 6900 series Ku-Band transceivers offer a wide range of distinctive advantages and enhanced features for satellite communications systems based in remote or challenging geographic regions.

Available in all common C-Band and Ku-Band operating frequencies—and a range of output powers—the 6700 and 6900 series provide industry leading technical performance.

### KEY FEATURES

#### Configuration

The 6700 and 6900 series are based on a compact L-Band IF input Block Up Converter (BUC). This module is available in C-Band and Ku-Band versions and a range of RF output powers. Receive capability is provided by a range of LNBS to cover the various C-Band and Ku-Band receive frequency ranges.

#### Durability

The 6700 and 6900 series are designed and tested to meet all their performance specifications over an ambient temperature range of -40°C to +55°C and up to 100% relative humidity, ensuring long-term survival in extreme conditions. Field experience for Codan transceivers shows that MTBFs of greater than 100,000 hours can be expected.

#### RF performance

RF performance is superior, particularly: intermodulation performance, gain stability over temperature and flatness across the IF band. The 6700 and 6900 series also boast industry leading spurious and harmonics specifications compliant with CE requirements. Guaranteed RF performance ensures expensive system link margins do not have to be used to cope with RF transceiver variations.

#### Power

Codan's L-Band IF transceivers all feature low power consumption and low temperature rise, ensuring internal components do not suffer undue stress.

The 6700 and 6900 series Low power (LBUC) modules are powered via the transmit IF cable. The Medium power (MBUC) modules are AC mains powered.

#### Internal protection

Internal protection against high temperature and short or open circuit RF output is standard. As well, input voltage detection ensures reliable shutdown and restart under brownout or blackout conditions.

#### External protection

The transceiver is completely protected from the elements without external user controls. The BUC modules are fully sealed and pressure tested to 34 kPa (5 psi). Particle and moisture penetration is rated to IP67. High quality powder coat paint is used to protect the modules from corrosion.



C-Band Low power Block Up Converter



C-Band Medium power Block Up Converter

### CODAN QUALITY AND SERVICE

All L-Band IF transceivers are built and tested in Codan's ISO9001 quality certified manufacturing facility, and undergo 100% burn in and performance monitoring

over the temperature range specified.

Codan's fully trained staff and agents provide in-factory and in-country training services and

complete installation and on-site assistance. This service is backed up by a 24 hour customer service line and a warranty of three years on manufacturing, design or component defects.

### ADVANCED FEATURES

#### Enhanced monitor and control

All operating functions can be controlled and monitored via the serial M&C facilities. The standard output power meter facility features high accuracy and the ability to measure both CW and burst mode signals.

The 6700 and 6900 series is capable of operating with a PC without requiring proprietary software.

The user has the choice of an FSK based M&C interface, which is fed via the transmit IF cable for use with intelligent modems or separate RS232 or RS422/RS485 interfaces.

Multiple M&C protocols are provided to enable integration into a number of network management systems.

#### IF Interface Unit

In cases where the modem is not able to drive the transceiver directly, an optional indoor unit is available. This unit connects to the modem at the L-Band transmit and receive IF interfaces, and multiplexes the required power and reference signals on the IF cables. In addition, it also converts the M&C FSK to separate RS232 and RS422/RS485 interfaces.

### MAJOR CONFIGURATION OPTIONS

Refer to individual specification sheets for allowed combinations of configuration options.

#### Receive frequency bands (GHz)

Receive bands are selected by the use of an appropriate LNB. Standard frequency bands are listed below. Noise temperatures of 40 K (C-Band) and 75 K (Ku-Band) are available.

#### C-Band

3.400–4.200

#### Ku-Band

1 10.95–11.7  
2 11.7–12.2  
3 12.25–12.75

#### Transmit frequency band (GHz)

#### C-Band

5.850–6.725

#### Ku-Band

13.75–14.5 and 14.0–14.5

#### Block Up Converter RF output power

#### C-Band

6705 5 W  
6710CE/SE 10 W  
6720 20 W  
6725 25 W  
6740 40 W

#### Ku-Band

6904 4 W  
6908CE/SE 8 W  
6916 16 W

CPR137G waveguide output standard, N female coaxial connector optional

PBR120 (WR75) waveguide output standard

#### Power Input

24 V DC nominal  
48 V DC nominal  
115/230 V AC nominal

#### Accessories

Hand-held Controller  
Remote Controller  
IF Interface Unit  
Transmit Reject Filter  
Antenna mounting kits  
Redundancy System



6560 Hand-held Controller

CE0682

CETECOM™

Equipment descriptions and specifications are subject to change without notice or obligation



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