

Block Up Converter

High power C-Band and Ku-Band

Codan’s High power Block Up Converter (BUC) systems offer a wide range of distinctive advantages and enhanced features for satellite communications systems based in remote or challenging geographic regions.

Available in the standard C-Band and Ku-Band operating frequencies—and a range of output powers—the BUCs provide industry leading technical performance.

KEY FEATURES

Configuration

The High power BUC systems are based on Codan’s Low power Block Up Converter (LBUC) driving a Codan high power solid state power amplifier (SSPA). The SSPA is available with 120 watts (C-Band) or 40 watts (Ku-Band) of RF output power.

Durability

The High power BUC systems are designed and tested to meet 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 BUCs 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 BUC systems also boast industry leading spurious and harmonics specifications. Guaranteed RF performance ensures expensive system link margins do not have to be used to cope with RF transceiver variations.

Power

Codan’s High power BUC systems all feature low power consumption and low temperature rise, ensuring internal components do not suffer undue stress.

The LBUC modules are powered via the transmit IF cable, and the SSPAs are AC mains powered.

Internal protection

Internal protection against high temperature and short or open circuit RF output is standard.

External protection

The BUCs and SSPAs are completely protected from the elements without external user controls. All modules are fully sealed and pressure tested to 34 kPa (5 psi).

CODAN QUALITY AND SERVICE

The LBUC and SSPA modules 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.



C-Band High power Block Up Converter system

ADVANCED FEATURES

Enhanced monitor and control

All operating functions can be controlled and monitored via the serial Monitor & Control (M&C) facilities.

The operating configuration is stored in EEPROM to ensure the set-up parameters are restored in the event of a power failure.

The LBUCs have universal interface compatibility and are capable of operating with dumb terminals and laptops/PCs emulating terminals.

Codan provides the optional Hand-held Controller 6560 for easy set up of the LBUCs.

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.

The user-friendly, PC-based SSPA Manager is provided for operator control and monitoring of the SSPA.

MAJOR CONFIGURATION OPTIONS

Transmit frequency band (GHz)

C-Band

5.850–6.425

Ku-Band

14.0–14.5

RF output power

C-Band

Driver

6702 LBUC 2 W

High Power Amplifier

5712H SSPA 120 W

CPR137G waveguide output standard

Ku-Band

Driver

6902 LBUC 2 W

High Power Amplifier

5940 SSPA 40 W

PBR120 (WR75) waveguide output standard

Options and accessories

Hand-held Controller

Remote Controller

IF Interface Unit

Low Noise Block converters (LNBs)

Transmit Reject Filters (TRFs)

Antenna mounting kits

Redundancy systems



L-Band IF Interface Unit



6560 Hand-held Controller

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

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