

C/Ku-Band high power transceivers

Codan's 5700 series C-Band and 5900 series Ku-Band high power transceivers offer a wide range of distinctive advantages and enhanced features for satellite communications systems based in remote or challenging geographic regions.

Available in single or dual synthesiser options, extended C-Band and Ku-Band frequency bands and 70 or 140 MHz IF configurations—and a range of power outputs—the 5700 and 5900 series provide industry leading technical performance.

KEY FEATURES

Durability

The 5700 series and 5900 series are designed and tested to meet their performance specifications in an ambient temperature range from -40°C to +55°C, ensuring long-term survival in extreme conditions. Field experience shows that MTBFs of greater than 60,000 hours can be expected.

RF performance

RF performance is superb, particularly intermodulation performance, gain stability over temperature and flatness across the IF band.

These transceivers also boast industry leading spurious and harmonics specifications while guaranteed RF performance ensures expensive system link margins do not have to be used to cope with RF transceiver variations. The high linearity and low spurious characteristics contribute to superior multi-carrier performance.

Output power options

The 5700 series C-Band transceiver is available with 60 watts and 120 watts output power rating. The 5900 series Ku-Band transceiver is available with 40 watts output rating.

Power consumption

Codan's high power transceivers feature low power consumption and low temperature rise, ensuring internal components do not suffer undue stress.

Power supply

All the high power transceivers are AC mains powered and may be field selected to operate from either 115 V AC or 230 V AC.

Internal protection

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

ADVANCED FEATURES

Enhanced monitor and control

All operating functions can be controlled and monitored via the serial interface, and the operating configuration is stored in EEPROM to ensure the set-up parameters are restored in the event of a power failure.



High Power Transceiver

Universal interface compatibility

The 5700 series has universal interface compatibility capable of operating with dumb terminals, laptop/PC emulating terminals, handheld terminals and personal organisers without requiring proprietary software. The versatile configuration options support contact closure, RS232, RS422 and RS485 (2 or 4 wire).

Two dedicated controllers are available from Codan:

- 5560 Hand-Held Controller, suitable for in the field installation setup

- 5570 Remote Controller, suitable for indoor rack mounting to provide permanent monitoring and control capabilities

Redundancy switching system

A redundancy switching system is available to provide an automatic changeover to a second transceiver to maximise availability and minimise any disruption to service. This system is fully outdoor mounted, but can be supplied with the 5587 Redundant System Monitor to provide indoor monitoring and control.

MAJOR CONFIGURATION OPTIONS

C-Band frequency band (GHz)	Transmit	Receive
2 C-Band extended	5.850–6.425	3.625–4.200
C-band transmit/receive frequency control		
D Dual synthesiser		
S Single synthesiser		
C-Band LNA		
A selection of LNAs is available to best meet noise temperature and configuration needs.		
Ku-Band transmit frequency band (GHz)	Transmit	
1 Ku-Band standard	14.00–14.50	
Ku-Band receive frequency bands		
All systems use the common 5900 series converter module, which has an RF input of 950-1700 MHz. Receive bands are selected by the use of an appropriate LNB. Standard frequency bands are listed below.		
Ku-Band LNB		
Standard noise temperature 90 K		
Band 1	10.95–11.7 GHz	
Band 2	11.7–12.2 GHz	
Band 3	12.25–12.75 GHz	
(LNBS are phase locked to the internal 10 MHz reference in the 5900 converter module)		
Bandwidth		
N Narrow band (40 MHz)		Field selectable 70 or 140 MHz IF
W Wide band (80 MHz)		140 MHz IF only
Output power		
C-Band	60 W and 120 W	WR137 waveguide output standard
Ku-Band	40 W	WR75 waveguide output standard
Options and accessories		
Hand-Held Controller		
Remote Controller		
Redundancy Switching Systems		
Transmit Reject Filters		
Antenna Mounting Kits		



5560 Hand-Held Controller



5570 Remote Controller

CODAN QUALITY AND SERVICE



Redundancy Switching System

The high power transceivers are built and tested in Codan's ISO9001 quality certified manufacturing facility, and undergo 100% burn in and performance monitoring.

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.

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

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