

TELEMETRY

CBT-610 Transmitter



The CBT-610 transmitter is a car-based L-band RF transmitter for telemetry data. Data is transmitted as an approx 2MHz wide signal in the 1450-1650MHz portion of the L-band.

Telemetry data is primarily transferred to the CBT-610 unit from the on-car host unit via HDLC or ARCNET. Payload RF telemetry data rates of up to 2Mbps are supported. Retransmitted data handshaking for improved lap coverage is not required at many circuits, but may be provided using a small companion UHF modem (the CBX-450).

Electrical

- Supply Voltage 11.5 to 16.0V DC (full RF performance)
- Reverse polarity input protection provided on the supply
- Supply Current operating
3.5A typical @ 13.8V on high power setting
1.6A typical @ 13.8V on low power setting
- Supply Current quiescent (RF shutdown) mode <1A
- Frequency range 1450-1650MHz (L-band, 2MHz steps)
- Minimum channel spacing 4MHz (6MHz recommended)
- RF output power 50mW to 1W adjustable

Outputs

- 1 RF output (L-band)
Typical error corrected payload data rate of 2Mbps

Communications

- 2 HDLC interfaces, full duplex with 2 way synchronous clocks, up to 8Mbps (can be software configured as 1 HDLC and 1 ARCNET, up to 10Mbps)
- 1 CAN bus interface, up to 1Mbps as standard
- 1 RS232 interface, up to 57.6kbps

Diagnostics

- 2 internal diagnostic temperature sensors
- 2 internal RF power sensors (forward and reverse)

Application

- High data rate continuous telemetry transmitter

Connection Definition

- Chassis connector AS2 12-35PN
- RF connector 50ohm SMA socket
- For pinout information please consult our Technical Consultancy Department

Mechanical

- Case material magnesium alloy, chromate converted and painted with black epoxy polyester paint
- Weight approximately 508g
- Vibration isolation is recommended

Recommended Service Interval

1 year

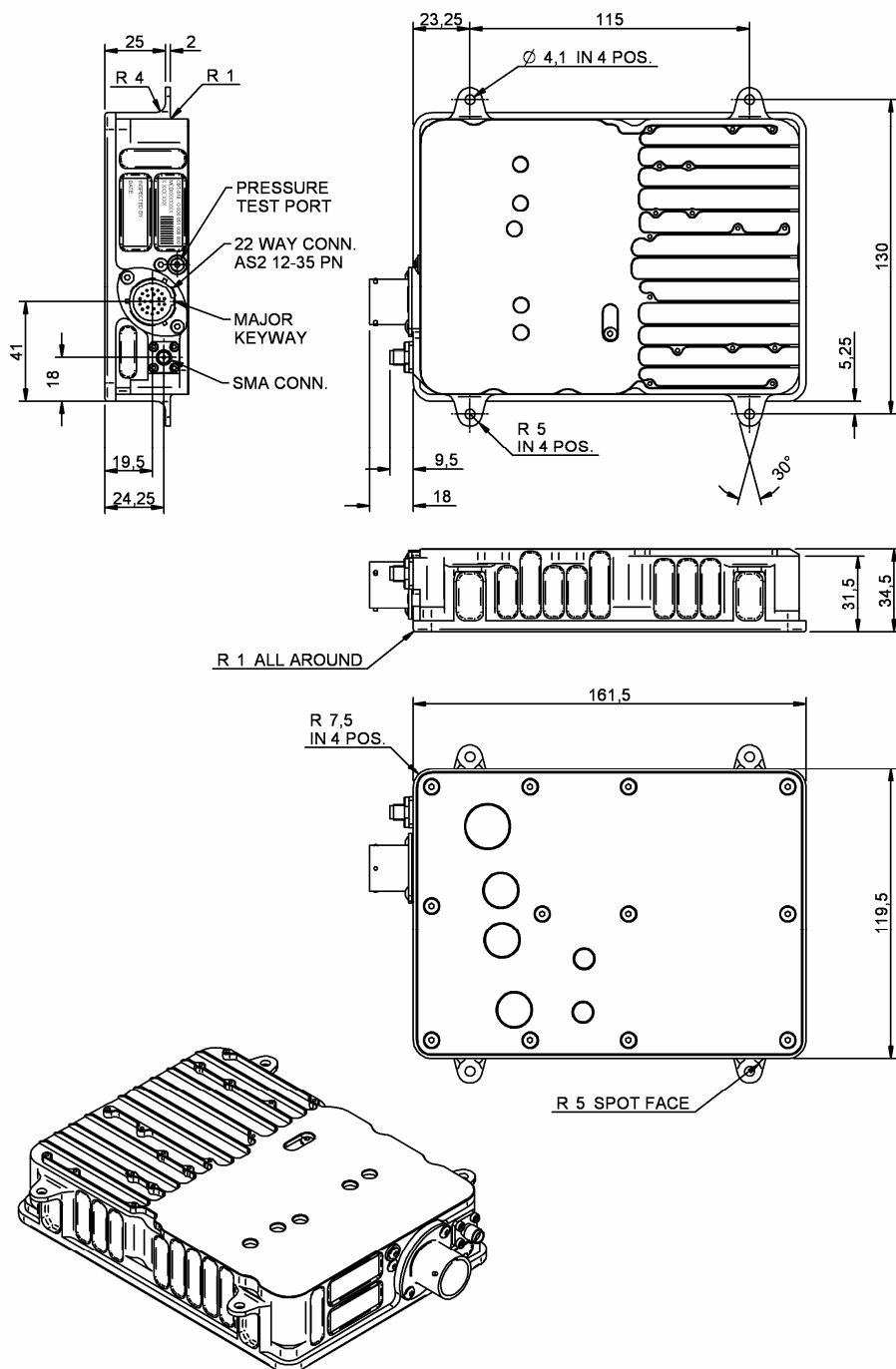
Environmental

- Splash resistant to standard motorsport fluids
- Lid is sealed to the case, all through-case fixings sealed with silicone sealant, sealed motorsport connectors
- Maximum humidity 100%
- Minimum operating temperature 0°C
- Internal temperature not to exceed 70°C as measured on the temperature diagnostic, if necessary forced air cooling should be applied
- Storage temperature -10 to 85°C
- Vibration 100 to 1000Hz, all axes, 24hrs

20/02/07

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Description	Order Code
CBT-610 with ARCNET	O 030 051 008 001

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