

7085P 2-Watt Radio Transceiver

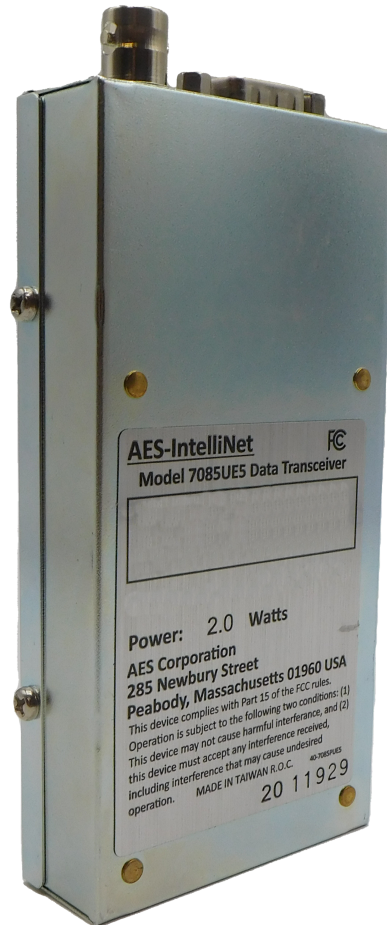
The AES 7085P 2-watt radio transceiver is designed for OEM use in remote monitoring & central applications. Since it can be tuned to operate at different frequencies within the 20 MHz band, it eliminates deployment delays often associated with fixed crystal radios which need to be manufactured to a specific frequency.

Features

- MultiChannel
- Surface Mount Technology for stability & quality
- Stable, PLL Synthesized Transmitter for OEM Applications including:
 - SCADA
 - Barcode
 - Wireless Data/Control Communications Telemetry

Regulatory Approvals

- ETSI 300-113 and ETSI 300-113-1
- Meets CE and EC-R&TTE Requirements
- FCC Compliance Parts 22, 74, 90, 95
- EC Compliance Declaration of Conformity



General Specifications

Frequency Control

- PLL Synthesizer

Frequency Range

- 410/430, 450/470

Channels

- 1 (16 Channel Optional)

Channel Spacing

- 12.5 or 25 kHz

Modulation System

- F3E(FM)

Emission

- 10K8F3E, 7K2F2D

Operating Temperature

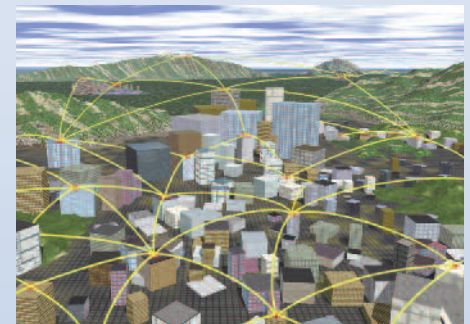
- 20° C to + 70° C

Frequency Stability

- +/- 1.5ppm

Performance Specifications

- Supply Voltage - 13.8V std.
- Nominal Dimensions - 5.25 x 2.5 x 0.80 (135x63x25mm) (includes connectors)
- Approx. Weight 7.0 oz. (196 gm.)
- Case Material - Stainless steel



Wireless mesh networking is an innovative technology adopted by many industries with applications that need to communicate data over a large geographic area with a high level of reliability at a low total cost of ownership.

The advanced design and communications capability provides easy installation, expansion, and management when compared to alternative communication methods, both wired and wireless.

For more information
Call (800) 237-6387

AES Corporation | 285 Newbury Street | Peabody, MA 01960 USA
Tel. +1 978-535-7310 | Fax +1 978-535-7313 | Email info@aes-corp.com
aes-corp.com



7085P 2-Watt Radio Transceiver

Performance Specifications

- Sensitivity 0.35 uV or better (12dB SINAD)
- Noise quieting 20 dB or better at 0.5 uV
- Recovery after transmit 40 milliseconds or less PTT release
- Modulation acceptance bandwidth + / - 3.0 kHz at 12.5 kHz Ch Spacing
- Spurious and image rejection at least 70 dB
- Intermodulation rejection at least 60 dB
- Selectivity at least 75 dB for freq. at + / -12.5 kHz of ch frequency
- Audio output at 12.5 kHz Ch Spacing: at least 100 mV rms into 30k ohms @ 1.5 kHz deviation with a 1 kHz modulation tone
- Audio harmonic distortion 4% or less with a 10 microvolt input RF level, 1 kHz modulating tone at 12.5 kHz Ch Spacing: + / - 1.5 kHz deviation
- Current 85 mA maximum

Transmitter

- Carrier power output 2W/5W
 - Audio harmonic distortion at 12.5 kHz Ch Spacing: no more than 5% for a 1kHz modulating tone at + / - 1.5 kHz deviation
 - Maximum deviation capability at 12.5 kHz Ch Spacing: at least + / - 2.5 kHz
 - Modulation limiting Instantaneous peak clipping with low pass audio filter
 - Audio input level 250 to 350 mV rms for 2.5 kHz deviation @ 1 kHz, adjustable
 - Deviation vs. temperature + / - 0.2 kHz over operating temperature range
 - FM hum and noise at least -45 dB down
 - Output protection Shall withstand for 4 minutes all VSWR around S Smith chart of 20:1 without failure or damage
 - Input current not more than 900 mA @ 1W RF output, 2A @ 5W RF output
 - Spurious & harmonic emissions less than -60 dB
 - PTT input Grounding the PTT line enables the transmit mode. Maximum current sourced from the PTT line during transmit mode with the line tied to ground shall be 30mA
- Time Out Timer Auto shut off after PTT held low. Adjustable 15 second factory default

Pin Description - 9 Pin "D" Connector

- 1 Data (Audio) In
- 2 Data (Audio) Out
- 3 PTT
- 4 Ground
- 5 Power
- 6 Carrier Detect (Low on Detect)
- 7 Spare
- 8 Program / DATA
- 9 Program / ENB

RF Connector

BNC

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