

Multi Channel 5.8GHz Radio Transceiver

High Performance 128 Channel Automotive Radio Transmission System



«INDUSTRIAL DATA TRANSMISSION»

- Data transmission for machine control and parameter sensing is one of the most difficult, but also most interesting tasks in the industrial production process.
- Disturbing and error-prone cables and interface connectors can be avoided only by wireless technology.
- But using wireless technology the conditions for wave propagation are possible unfavourable due to multipath fading, reflection on metallic surfaces, metal barriers and moving machine parts and vehicles.
- Also the high agglomeration of wireless devices and systems within factories like Bluetooth, WLAN, RFID, special radio links or microwave ovens, also unwanted RF sources like drive controls, makes it difficult to introduce a new system without disturbing and without being disturbed by the existing systems.
- To maintain the advantages of wireless technology in the rough industrial environment the wireless systems have special requirements regarding radio hardware, modulation and software.
- IK Elektronik as one of the leading companies for application specific wireless systems has created a very robust, state-of-the-art point-to-point data transmission system adapted on the special industrial requirements.

«FEATURES»

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|---------------------------------------|--|
| ■ Frequency Band | ISM 5.725 to 5.875GHz |
| ■ Homologation | RTTE, FCC |
| ■ Net Data Rate (uni-directional) | 115kbps |
| ■ Channels (simultaneous use) | 127 |
| ■ Modulation | FSK |
| ■ Free space distance (0dBi antennas) | At least 200m |
| ■ Supply Voltage | 4.5 to 5.5V |
| ■ Current Consumption | max. 200mA (Transmission mode) |
| ■ Size | 100.2 x 47.2 x 10.5mm ³ |
| ■ Operating Modes | Reception
Transmission
Parameterisation
Standby
Test |
| ■ Implemented Software Algorithms | Serial interface
Test modes and signals
Data encryption
Forward error correction (FEC)
Transceiver control |

«APPLICATIONS»

- Data transmission between control units and vehicles on an automotive assembly line like:
 - Data transmission for vehicle testing
 - Parameter transmission for vehicle onboard control units
 - Vehicle registration and identification
- Any other industrial applications requiring reliable data transmission via short distance.

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