WZ FSE

The radio unit for voice and data transmission

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Radio unit WZ FSE 2-2 for voice and data transmission

The radio unit WZ FSE is a **radio transmitter / receiver** which is available as OEM version. It is designed for **data and speech transmission**. Due to its small and compact design, it is suitable for integration into data systems where it is important to **have high data rates over a long distance.**

Units in the **70 cm, 2 m and 4 m frequency band** with a **transmitting power of 25 mW up to 10 W**, adjustable in 5 steps, are available. Separate channels for speech and data transmission with different transmitting powers can be configured on the 32 program memories. The parametrisation is done via Windows user interface and RS232 interface. Because of an implemented SWR and temperature protection, a high reliability is guaranteed. The firmware can be updated.

The unit complies with the requirements of the **VDV (public transport companies association) standards** and can be used within the public transport sector.

In connection with a GMSK modem, data rates up to 9600 baud and with an FFSK modem data rates up to 2400 (4800) baud can be achieved.

A radio unit WZ FS for voice and data transmission without receiver is also available.

Technical data:

	WZ FS 2-2	WZ FSE 2-2	WZ FSE 2-2 (HK)	WZ FSE 2-2 (UK)	WZ FSE 70-3/O
Transmitting power	25 mW … 10 W	25 mW … 10 W	500 mW … 10 W	25 mW … 6 W	2 5mW … 6 W
Frequency range	146 … 174 MHz	146 … 174 MHz	135 …162 MHz	165 …195 MHz	450 … 470MHz
Channel spacing	20 / 25 kHz	20 / 25 kHz	12.5 kHz	12.5 kHz	12.5 kHz
Frequency tolerance	max. ± 1.0 kHz	max. ± 1.0 kHz	max. ± 1.5 kHz	max. ± 1.5 kHz	max. ± 1.5 kHz
Speech transmission	PM: pre-emphase, 6 dB / octave or FM: linear				
Data transmission	FM, linear				
Type of modulation	F1D, F2D, F3E, G1D, G2D; G3E				
Distortion factor	< 5 %				
Nominal voltage	10.8 … 15.6 V DC				
Current consumption Receive Transmit	- typ. 2.2 A	typ. 150 mA typ. 2.2 A	typ. 170 mA typ. 2.5 A	typ. 150 mA typ. 2.5 A	typ. 150 mA typ. 2.0 A
AF frequency band Speech Data	300 … 3000 Hz 30 … 3000 Hz				
Interfaces	RSSI, AF+, data output				
	operating voltage, transmitter keying, Mod+, RS232 programming input, 5 control inputs for selecting the 32 program memories, status outputs for overtemperature and error message in case of faulty insertion / malfunction, data input, MCX antenna connection				
with optional adapter PCB IF	analogue / digital outputs USB, RS232, RS422, RS485, analogue / digital inputs				
Weight	approx. 200 g	approx. 230g			approx. 215 g
Dimensions (L x W x H in mm)	approx. 98 x 65 x 23	approx. 98 x 65 x 33			
Attack time	< 15 ms				
Release time	< 6 ms				
Sensitivity	typ. -114 dBm / 20 dB SINAD (speech output with CCITT filter)				
Blocking	typ. 100 dB				
Temperature range	-25 °C … +55 °C				
RF operating modes	simplex	simplex, semiduplex			
e1/E1 labelling	e1	e1	-	e1	E1, e1
Approval	ETSI EN 300 113 (data) und ETSI EN 300 086 (speech) ETSI EN 301 489 (EMC)				

Options:
- 12.5 / 20 / 25 kHz channel spacing
- Other frequencies and special frequencies
- Other power stages
- Integrated GMSK or FFSK modem

Subject to change without notice

03/07