

Prima-DMV

Airborne VHF/UHF radio



PRIMA-DMV-1 radio provides telephone and telecode radio communication in 30 - 400 MHz frequency range between aircraft and ground control posts



The radio provides:

- two-way simplex telephone and datalink radio communication on the fixed frequencies (FRF) mode;
- telephone and datalink information relaying (with similar radio set) in FRF mode;
- signals guard receiving on one of the emergency frequencies (by embedded guard receiver);
- operation on the preprogrammed radio communications channels.

Radio set does not require forced cooling

The radio set uses the following emission classes in the 30-400 MHz range:

Frequency range, MHz	Frequency spacing, kHz	Emission class	Note
30.000-87.975	25	16K8F3EJN	FM single-channel telephony (F3E)
		F1BBN	FSK single-channel teleprinter (F1B)
118.000-136.975	8,33; 25	5K00A3EJN	AM single-channel telephony (A3E)
100.000-149.975	25	6K80A3EJN	AM single-channel telephony (A3E)
		F1BBN	FSK single-channel teleprinter (F1B)
220.000-399.975	25	16K8F3EJN	FM single-channel telephony (F3E)
		F1BBN	FSK single-channel teleprinter (F1B)
156.000-173.975	25	16K8G3EJN	FM single-channel telephony (G3E)
138.000 - 173.975	25	16K8F3EJN	FM single-channel telephony (F3E)
30-87.950	50	G1W (M1)/F1W (M1.2)	ECCM mode M1/M1.2
100.000-149.950	50	G1W (M1)/F1W (M1.2)	ECCM mode M1/M1.2
220.000-399.950	1000	G1W (M1)/F1W (M1.2/M4)	ECCM mode M1/M1.2/M4

Specifications:

Parameter	Value
Modulation frequencies range, Hz	
A3E, F3E	300-3400
G3E, A3E (118.000-136.975 MHz range)	300-2500
ECCM mode	300-2500
Baud rate (F1), Bd	1200, 2400, 4800, 9600, 16000
Data rate (M1.2, M1) Kbit/s	1.2; 2.4; 4.8; 16
Data rate (M1.2, M4) Kbit/s	32, 64, 128, 256, 512, 768
Frequency shift (F1), kHz	±3; ±10
Frequency relative accuracy	5•10 ⁻⁷
Emission power, W	
A3E / A3E (118-136.975 MHz)	20/25
F1B, F3E, G3E	30
ECCM mode (peak)	75
Receiver sensitivity, µV	
A3E, F1B, F3E, G3E	1
F1B (16000 bit/s)	2
ECCM mode (G1W, F1W)	2,5
A3E (guard receiver)	3
Guard receiver frequency, MHz	121.5; 156.8; 243; 406
The quantity of programmable channels (FRF/ECCM modes)	40/40
Duty cycle (Tx/Rx), min	1/3
Power supply, V	18-31
Power consumption, W (Tx/Rx)	
FRF, M1, M1.2	240/40
M4, M1.2 (32 Kbit/s)	400/40
Interfaces	
control	GOST 18977-79, Ethernet, RS-422, CAN
information	S1-Tch, S1-FL, RS-422, (0-10)V
Operating temperature, °C	
high/ low	+ 60/ - 60
Dimensions (WxHxD), mm	
transceiver on the mount	131.5x172x362.5
control panel	146x64x55
Weight, kg, max	
transceiver/ control panel/ mount	5.4/ 0.4 /0.5
Mean time between failures, hours	5000