

Prima-400

Family of airborne HF radio sets

Prima-400 radio sets are intended for telephone and datalink communication on fixed HF range frequencies between aircrafts, helicopters and ground communications centers. Prima-KV radios provide operation in the frequency range of 2.0000 to 29.9999 MHz with frequency spacing 100Hz.

There are different versions of Prima-400 – for civil aviation, as well as radio sets with adaptive communication.



Prima-400 basic version



Prima-400 with adaptive communication

Key features:

- Output power 400 W
- Powered from line supply of 115 V 400 Hz (3 phases)
- Small dimensions and weight
- Built-in test control system
- High reliability

Key features:

- Output power 400 W
- SDR
- Operation in ALE mode
- Data transmission in similar modes: STANAG 4538, STANAG 4539, STANAG 4415, MIL-STD-188-110B
- Powered from line supply of 115 V 400 Hz (3 phases)
- Small dimensions and weight
- Built-in test control system
- High reliability

Specifications:

Parameter	Basic version	for civil aviation	with adaptive communication
Frequency range, MHz	2.0000 – 29.9999	2.0000 – 29.9999	2.0000 – 29.9999
Frequency spacing, Hz	100	100	100
Relative frequency error	5×10^{-7}	5×10^{-7}	5×10^{-7}
Emission classes	3E, H3E/A3E, R3E, A1A, F1B, G1B, J7D	J3E, H3E/A3E, A1A	J3E, H3E/A3E, R3E, A1A, F1B, G1B, J7D, G7D
Emission power (peak), W	400	400	400
Receiver sensitivity, μ V	1 (J3E)	1 (J3E)	0.6 (J3E)
Quantity of programmed channels	40	40	265
Cyclicity (Tx/Rx), min	5:5	5:5	Tx without limitation in adaptive communication
Data rate in emission classes, bit/s			
F1B, G1B	75, 150, 300, 500	-	75, 150, 300, 500
J7D	1200, 2400	-	1200, 2400
G7D	-	-	75-9600
Mean tuning time, s	2 (0,1 «from memory»)	2 (0,1 «from memory»)	2 (0,1 «from memory»)
Power consumption (Tx/Rx), max	1400	1400	1500
Selective call receiving (SELCAL)	-	available	-
Interfaces:			
GOST 18977/RS-422/RS-232	2/2/1	2/2/1	2/2/1
Ethernet/CAN	-	-	2 channels / 1 redundant
Transceiver weight, kg, max	22	22	19
Operating temperature, °C	-60 +60	-60 +60	-60 +60
Power supply	115 V 400 Hz	115 V 400 Hz	115 V 400 Hz