

Telemetry equipment complex

Telemetry equipment complex

Telemetry equipment complex (TMEC) is designed to transmit on-board information from a high-dynamic facility to ground receiving points (GRP).

The onboard telemetry equipment (TME) includes: a GNSS receiver with an antenna, a telemetric information transmitter (TIT), antenna transmitter kit and embedded software.

GRP a set of antennas for work in the near and far zone, a GNSS receiver with an antenna, a TIT receiver, turntables, a GSM/GPRS modem, a PC with software, an autonomous power supply device and a tent (awning).



General requirements for TMEC

Parameter	Value
Frequency range	DI, DII, DIV
Number of lettered frequencies	3

Parameter	Value
Information transfer rate from aircraft to GRP, kbps	<400
Bit error probability	<10 ⁻⁷
Range of radial velocities of aircraft, m/s	±1800
Range of inclined ranges to aircraft, km	0,1...100
The height range of aircraft, km	0 ...50
Time of continuous work onboard TME, min	< 20

Parameters of onboard TME

Parameter	Value
Maximum (3s) measurement error on the entire flight path of the aircraft: <ul style="list-style-type: none"> • coordinates, m • components of speed, m/s 	<ul style="list-style-type: none"> • 30 • 0,5
Accuracy of binding TME to GNSS time stamp, ns	<50
Power supply, V	23 ... 34
Current consumption, A	<0.4
Volume, dm ³	<2
Maximum diameter, mm	120
Mass, kg	<3