

Y-SPACE

DIGITAL SATELLITE DEMODULATOR

The Y-Space was primarily developed as an equipment for ground receiving stations of Earth remote sensing systems (ERS).

An important feature of the receiver is the ability to work with satellites, which are on orbits different to geostationary orbits that follow the direction of the Earth's rotation.



Current characteristics

Symbol rate range	60...180 Msps, step 1 ksps
Roll-off	0.35, 0.5
Data rate range (raw)	120...720 Mbps
Modulation types	QPSK, 8PSK, 16APSK
IF	720, 1 200 MHz
FEC	none
Dopler frequency shift	±400 kHz
Nominal input power	-20...0 dBm
Output power range	-45...-10 dBm (step 1 dBm)
User data interface	LVDS, Parallel-per-symbol output
Device configuration	2 receivers + 1 transceiver in case
Management interfaces	Local management throw USB or RS-232

Nearest-future characteristics

Symbol rate range	1...230 Msps, step 1 ksps
Roll-off	0.15, 0.20, 0.25, 0.35, 0.5
Data rate range (raw)	1...1 150 Mbps
Modulation types	BPSK, QPSK, 8PSK, 16APSK, 32APSK
IF	720...2 200 MHz
FEC	Viterbi, Reed-Solomon, LDPC
Dopler frequency shift	±400 kHz
Nominal input power	-20...0 dBm
Output power range	-45...-10 dBm (step 1 dBm)
User data interface	LLVDS, Parallel-per-symbol output, Ethernet RJ-45 10/100/1000BaseT, Ethernet 1000BaseX (SFP) or Ethernet 10GBaseR (SFP)
Device configuration	2 receivers + 1 transceiver in case
Management interfaces	Ethernet (SNMP), Local management throw USB or RS-232