

IZ225 Digital Receiver

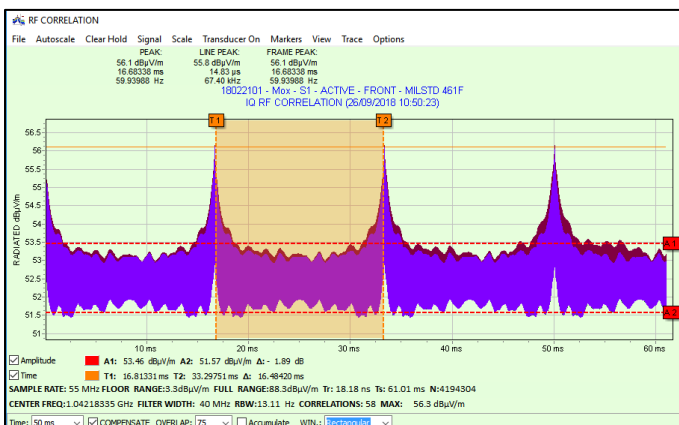
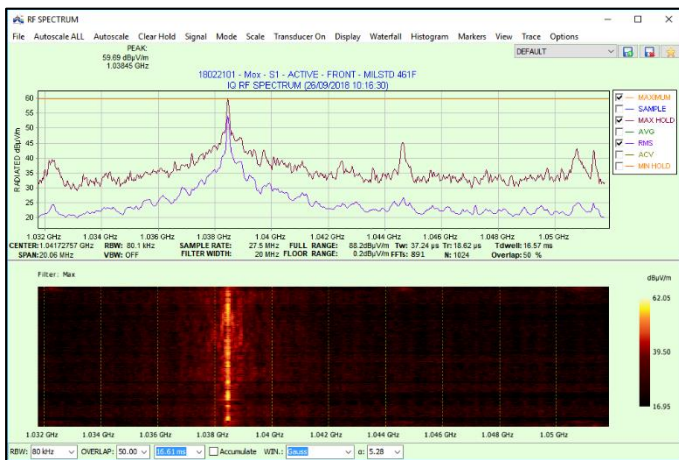
Wideband Digital Receiver

High capacity raw data streaming

Monitoring of wideband signals in HF/VHF/UHF/SHF.
Real-time monitoring with high capacity recording.
Based on Software Defined Radio architecture.

Main features

- Frequency range 1 kHz – 3 GHz
- High sensitivity preamplifier
- High stability reference oscillator
- Analysis bandwidth 40 MHz
- Remote control via LAN (optical, wire)
- Low power consumption
- Fast frequency scan, classification and analysis of signals with INTRIPLE's software
- Custom signal processing for special application
- Powerful signal processing in FPGA



Parameter	Value
Frequency range	1kHz to 3GHz
Noise Figure with LNA	4dB (10MHz to 1GHz), 7dB <3GHz
Noise Figure without LNA	12dB <1GHz, 16dB <3GHz
IF spectrum span	2kHz to 40MHz
IP3	With LNA -8dBm / without LNA +3dBm
Demodulation bandwidth	50Hz to 40MHz
ADC range	16 bits
LAN Interface	Ethernet 10/100/1000 Mbit/s
LAN throughput	950 Mbit/s
IQ stream real time output to LAN	up to 3,5 MHz at 16bit resolution, customizable firmware for higher rates with up to 20 MS/s
Digital HW FFT resolution	3,125kHz up to 400kHz
IF spectrum FFT resolution	1Hz up to 100kHz
Scan speed	>100GHz/s with frequency resolution 12,5 kHz
Frequency stability	0,2ppm+0,5ppm/year
Reference frequency	10MHz
External reference level	0dBm
Frequency step	1Hz
IF frequencies (for input frequency above 30MHz)	1st IF 4GHz, BW=100MHz 2nd IF 140MHz, BW=40MHz
Digital IF	30MHz
1st IF stop band selectivity	>100dB
2nd IF stop band selectivity	>100dB
1st local oscillator range	4GHz – 7GHz
1st local oscillator leakage	<-100dBm
2nd local oscillator tuning range	3800MHz to 4200MHz
2nd local oscillator leakage	<-85dBm
ADC sampling frequency	programmable up to 125MHz
ADC Measurement range	>100 dB
Maximum input level, Attenuator ON	30dBm
Fixed input attenuator	0dB/20dB, 1W
1st input attenuator	0,5dB step, 0dB to 31,5dB
2nd input attenuator	0,5dB step, 0dB to 31,5dB
LNA preamplifier gain	15dB to 25dB frequency dependent
Parasitic Image reception suppression	8,03GHz – 12GHz, >100dB
Operating temperature	-20°C to +55°C
Power supply	11V-30V DC
Power consumption	depending on signal processing, Maximum: 30W, standby: 12W, 1kHz - 30MHz: 14W, 30MHz- 2GHz: 24W 2GHz - 3GHz: 26W
Dimensions	0.238m x 0.158m x 0.063 m
Weight	<2.7 kg