

RF-CATCHER



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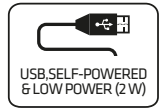
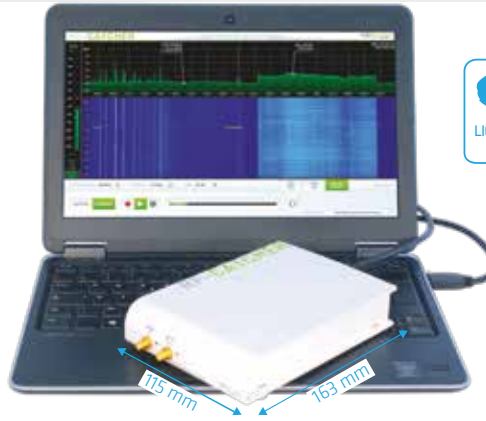
The Most Compact RF Capture & Playback device!

COVERING A FREQUENCY RANGE FROM 70 MHz UP TO 6 GHz, **RF-CATCHER** CAN RECORD AND PLAY REAL-TIME RF BANDWIDTH UP TO 56 MHz.

RF-Catcher allows experimentation of a wide range of signals including Radio (FM, DAB...), TV broadcast (DVB-T/T2, C/C2, S/S2, ISDB-T, etc...), cellular, Wi-Fi. In order to record frequencies superior to 6 GHz (e.g. DVB-S/S2), a down-converter can be used.

The integrated GPS receiver allows to have precise location information; KML file, metadata, NMEA compatible.

Portable and compact, the RF-Catcher is used along with a PC through USB3 connectivity.



Easy to use & responsive GUI

High degree of parameterization for measures

RSSI (Received Signal Strength Indication)

FFT display for live RF reception/playback

- Spectrum measurements
- Averaging functions
- FFT windows functions

IQ max power

IQ average power

Status indicators

- USB: connection (USB2 or USB3)
- LOSS: IQ sample loss
- IBS: in band saturation (ADC)
- OOPS: out of band saturation (LNA)

Frequency setting for capture (Rx) / playback (Tx)
range 70 MHz to 6 GHz
1 kHz resolution

RF Capture & Playback controls

Sample rate up to 61.44 Msps

Variable acquisition **bandwidth up to 56 MHz**

Gain setting for capture

Attenuation setting for playback

FFT resolution bandwidth:
30 Hz (for 2 MHz) to
210 kHz (for 56 MHz)

WATERFALL SECTION
Allows detection of bursts & transients (Wi-Fi, 4G, ...)

AGC (Automatic Gain Control) for RF reception

RF capture file stored on PC:
170 min of 12 Msps bandwidth record = 512GB
NONPROPRIETARY IQ FILE FORMAT

APPLICATIONS

- Chipset, STB/TV field test debugging (a great tool to support your pre-sales team)
- Easy & simple usage: no need for **RF experts** to capture field RF signals (ex: DAB/FM, TV broadcast, Satellite broadcast, Wi-Fi,...), **your sales force can do it for you anywhere in the world**
- **Handy** demonstration setup: bring real RF sources into your laptop
- RF sources stored on a PC: easy to duplicate/transfer between headquarter and regional sites
- Radio/TV Broadcast/Telecom RF troubleshooting
- Test automation (command line tool)
- Telecommunications Regulation Agencies validation tool



RX MODE

Frequency	70 MHz to 6.0 GHz
Frequency band	1 kHz
Frequency resolution	200 kHz to 56 MHz
Real-time bandwidth	
Noise Figure	< 8 dB
Phase Noise at 10 kHz	
1200 MHz	-91.3 dBc/Hz
3200 MHz	-85.2 dBc/Hz
5000 MHz	-82 dBc/Hz
Noise Floor / Sensitivity	-110 dBm
IF Band	
ADC resolution	12-bit
Sampling rate	61.44 Msps max
RF Input Characteristics	
Input Dynamic Range	-110 to 2.5 dBm
Input Level Accuracy	± 3 dB
Input Level Resolution	1 dB
Max Peak power*	2.5 dBm
Max DC input*	15 V
<small>*Absolute maximum ratings</small>	
Gain Range (1dB step)	
800 MHz	0 to 74 dB
2300 MHz	0 to 73 dB
5500 MHz	0 to 65 dB
IIP3	
1200 MHz	7.2 dBm
3200 MHz	8.4 dBm
5000 MHz	15.2 dBm
Storage	
512 GB @ 12 Msps	170 min
512 GB @ 24 Msps	85 min
512 GB @ 40 Msps	50 min

CHARACTERISTICS

1x RF input, 1x RF output for RF Capture & Playback
Frequency range from 70 MHz up to 6 GHz, resolution 1kHz
Variable bandwidth from 200 kHz to 56 MHz
RF reception: <ul style="list-style-type: none"> • Status indicators: USB connection / IQ sample loss / In band saturation (ADC) / Out of band saturation (LNA) • FFT display: Spectrum measurements: FFT resolution, FFT markers insertion / Averaging functions: RMS, min/max hold / FFT window functions: rectangular, Hamming, Blackman, Hann... • FFT Resolution bandwidth (RBW): 30 Hz (for 2 MHz) to 210 kHz (for 56 MHz) • Signal waterfall plot (three-dimensional spectra)
RF capture: variable gain, automatic gain setting (AGC)
RF playback: variable attenuation
Lightweight and compact 163 x 115 x 27 mm, 600 g, 2 W power consumption
Connected to PC via USB3.0 connectivity (SuperSpeed) (USB2 backward compatible, but offers lower performances due to limited USB2 bitrate)
IQ files stored on the PC: 12 Msps sample rate, 170 min of record = 512GB
Nonproprietary IQ file format, supported by Matlab software
Integrated GPS receiver: KML file, metadata, NMEA protocol*
RF-Catcher tools: <ul style="list-style-type: none"> • IQ records format convertor (RF-Catcher ↔ Lumantek/NI/A74*) • IQ records time cut: optimise the network transfer of your RF captures: possibility to cut the captured file to take, transfer and/or upload to internet only the most important part • GUI software • Command line interface for test automation
Compatible MS Windows 7/8/8.1

*Contact us for availability

TX MODE

Frequency	70 MHz to 6.0 GHz
Frequency band	1 kHz
Frequency resolution	200 kHz to 56 MHz
Real-time bandwidth	
Phase Noise at 10 kHz	
1200 MHz	-91.3 dBc/Hz
3200 MHz	-85.2 dBc/Hz
5000 MHz	-82 dBc/Hz
RF Output Characteristics	
Attenuation range	0 to 89 dB
Amplitude accuracy	± 3 dB
Amplitude resolution	1 dB
Power output	5 dBm max
Max DC output	15 V

INTERFACES

RF input	1x SMA-type female - 50 Ω
RF output	1x SMA-type female - 50 Ω
1PPS	1x SMA-type female - 50 Ω
10MHz	1x SMA-type female - 50 Ω
GPS	1x SMA-type female - 50 Ω
Power & Data	1x USB3 B-Type

PHYSICAL

Dimensions	163 x 115 x 27 mm 6.4 x 4.5 x 1 in
Weight	600 g
Power supply	USB self-powered
Power consumption	2 W

ENVIRONMENT

Operating temperature	-40°C to +85°C
Storage temperature	-65°C to +150°C

ORDERING CODE

RF-Catcher	RF Capture & Playback Shipped bundled with RF-Catcher software for MS Windows 7/8/8.1
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