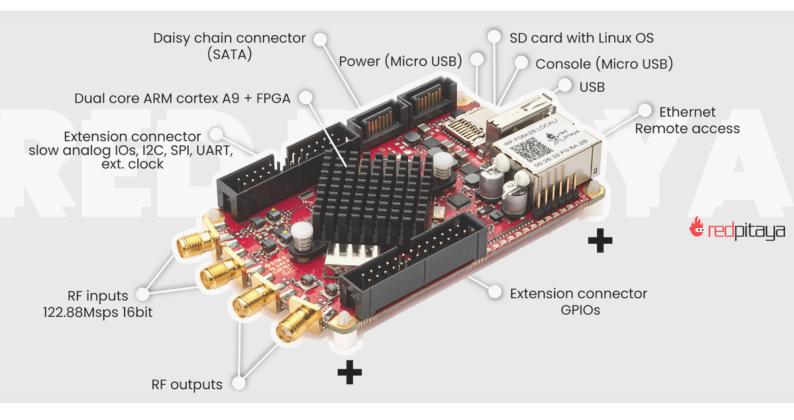
SDRlab 122-16

SDRlab 122-16 was developed specifically for software-defined radio and more demanding RF applications.

It comes with two 16-bit 50-ohm inputs and 14-bit 50-ohm outputs, Xilinx Zynq 7020 FPGA for real-time processing capabilities plus an ultra-low phase noise 122.88MHz clock which makes it more hardware-compatible with HPSDR compliant applications. RF inputs are optimized for minimal distortion, noise and crosstalk which significantly improves reception and broadens the choice of antenna.



Key features:

- Credit-card sized RF signal acquisition and generation platform
- Ethernet connectivity
- Xilinx SoC (CPU & FPGA)
- Two fast analog inputs and two outputs
- Possibility of integration into own system/product
- Open-source software code

- Works with Linux or Windows PC
- Free online apps (oscilloscope & signal generator, spectrum, logic analyzer, SDR)
- Can be controlled remotely using LabVIEW, MATLAB, Python, or Scilab
- Can be programmed to meet custom needs
- Supported by an app marketplace with several free apps available

Technical specifications SDR lab 122-16

Processor DUAL CORE ARM CORTEX A9 FPGA FPGA FPGA Xilinx Zynq 7020 SOC RAM 512MB (4Cb) System memory Micro USB Power connection Micro USB Power consumption 5V, 2A max CONNECTIVITY Ethernet 1 Gbit USB USB 2.0 WIFI Requires WIFI dongle RF INPUTS RF input channels 2 Sample rate 122.88 MS/s ADC resolution 16 bit Input impedance 50 Ohm Full scale voltage range 0.5Vpp/-2dBm Input coupling AC Absolute max. input voltage range DC max 50V (AC-coupled) 1Vpp for RF Bandwidth 300 kHz - 550 MHz RF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Solution 16 bit Input coupling AC Absolute max. input voltage range DC max 50V (AC-coupled) 1Vpp for RF Bandwidth 300 kHz - 550 MHz RF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Coad impedance 50 Ohm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes EXTENSION Tomposition (vp to 500 Mbps) Ref. clock input N/A	BASIC	
RAM 512MB (4Gb) System memory Micro SD up to 32GB Console connection Micro USB Power connector Micro USB Power consumption 5V, 2A max CONECTIVITY Ethernet 1 Gbit USB USB 2.0 WiFI Requires WiFI dongle RF INPUTS RF input channels 2 Sample rate 122.88 MS/s ADC resolution 16 bit Input impedance 50 0hm Input coupling AC Absolute max. input voltage range DC max 50V (AC-coupled) 1Vpp for RF Bandwidth 300 kHz - 550 MHz RF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s ADC resolution Input impedance 50 0hm Input coupling AC Absolute max. input voltage range DC max 50V (AC-coupled) 1Vpp for RF Bandwidth 300 kHz - 550 MHz RF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs 4 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes ESYNCHRONIZATION Trigger input Through extension connector Over SATA connection (up to 500 Mbps)	Processor	DUAL CORE ARM CORTEX A9
System memory Micro SD up to 32GB Console connection Micro USB Power consumption 5V, 2A max CONNECTIVITY Ethernet 1 Gbit USB USB 2.0 WIFI Requires WIFI dongle RF INPUTS RF input channels 2 Sample rate 122.88 MS/s ADC resolution 16 bit Input impedance 50 0hm Full scale voltage range 0.5Vpp/-2dBm Input coupling AC Absolute max. input voltage range Bandwidth 300 kHz - 550 MHz RF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s ADC resolution 16 bit Input coupling AC Absolute max. input voltage range DC max 50V (AC-coupled) 1Vpp for RF Bandwidth 300 kHz - 550 MHz RF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/+4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs 4 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	FPGA	FPGA Xilinx Zynq 7020 SOC
Console connection Micro USB Power connector Micro USB Power consumption 5V, 2A max CONNECTIVITY Ethernet 1 Gbit USB USB 2.0 WIFI Requires WIFI dongle FINPUTS RF input channels 2 Sample rate 122.88 MS/s ADC resolution 16 bit Input impedance 50 Ohm Full scale voltage range 0.5Vpp/-2dBm Input coupling AC Absolute max. input voltage range DC max 50V (AC-coupled) 1Vpp for RF Bandwidth 300 kHz - 550 MHz FOUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 Ohm Voltage range 122.88 MS/s DAC resolution 16 bit Load impedance 50 Ohm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 3000 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs 4 Analog inputs 4 Analog outputs 4 Analog outputs voltage range 0-3,5V Sample rate 120, SPI, UART Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Over SATA connection (up to 500 Mbps)	RAM	512MB (4Gb)
Power connector Power consumption SV, 2A max CONNECTIVITY Ethernet 1 Gbit USB USB 2.0 WiFI Requires WiFI dongle RF INPUTS RF input channels 2 Sample rate ADC resolution Input impedance Full scale voltage range Input coupling AC Absolute max. input voltage range DC max 50V (AC-coupled) 1Vpp for RF Bandwidth RF OUTPUTS RF OUTPUTS RF OUTPUTS RF OUTPUTS ADC resolution 16 bit Load impedance 50 Ohm Voltage range 122.88 MS/s ADC resolution 16 bit Load impedance 50 Ohm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS Analog inputs 4 Analog inputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Over SATA connection (up to 500 Mbps)	System memory	Micro SD up to 32GB
CONNECTIVITY Ethernet	Console connection	Micro USB
Ethernet 1 Gbit USB USB 2.0 WiFI Requires WiFI dongle RF INPUTS RF input channels 2 Sample rate 122.88 MS/s ADC resolution 16 bit Input impedance 50 0hm Full scale voltage range 0.5Vpp/-2dBm Input coupling AC Absolute max. input voltage range DC max 50V (AC-coupled) 1Vpp for RF Bandwidth 300 kHz - 550 MHz RF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/+4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Power connector	Micro USB
Ethernet 1 Gbit USB USB 2.0 WIFI Requires WIFI dongle RF INPUTS RF input channels 2 Sample rate 122.88 MS/s ADC resolution 16 bit Input impedance 50 0hm Full scale voltage range 0.5Vpp/-2dBm Input coupling AC Absolute max. input voltage range DC max 50V (AC-coupled) 1Vpp for RF Bandwidth 300 kHz - 550 MHz RF OUTPUTS RF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Power consumption	5V, 2A max
WIFI Requires WIFI dongle RF INPUTS RF input channels 2 Sample rate 122.88 MS/s ADC resolution 16 bit Input impedance 50 0hm Full scale voltage range 0.5Vpp/-2dBm Input coupling AC Absolute max. input voltage range DC max 50V (AC-coupled) 1Vpp for RF Bandwidth 300 kHz - 550 MHz RF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/+4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Over SATA connection (up to 500 Mbps)	CONNECTIVITY	
RF INPUTS RF input channels 2 Sample rate 122.88 MS/s ADC resolution Input impedance 50 0hm Full scale voltage range 0.5Vpp/-2dBm Input coupling AC Absolute max. input voltage range Bandwidth 300 kHz - 550 MHz RF output channels 2 Sample rate 122.88 MS/s ADC resolution Input coupling AC Absolute max. input voltage range Bandwidth 300 kHz - 550 MHz RF outputs RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Over SATA connection (up to 500 Mbps)	Ethernet	1 Gbit
RF INPUTS RF input channels 2 Sample rate 122.88 MS/s ADC resolution 16 bit Input impedance 50 0hm Full scale voltage range Input coupling AC Absolute max. input voltage range Bandwidth 300 kHz - 550 MHz RF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 11Vpp/+4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs 4 Analog outputs Analog outputs Analog outputs Analog outputs Voltages 12C, SPI, UART Available voltages 15VPCHRONIZATION Trigger input Through extension connector Doisy chain connection Over SATA connection (up to 500 Mbps)	USB	USB 2.0
RF input channels 2 Sample rate 122.88 MS/s ADC resolution 16 bit Input impedance 50 0hm Full scale voltage range 0.5Vpp/-2dBm Input coupling AC Absolute max. input voltage range DC max 50V (AC-coupled) 1Vpp for RF Bandwidth 300 kHz - 550 MHz RF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes EXYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	WIFI	Requires WIFI dongle
Sample rate ADC resolution Input impedance Full scale voltage range Input coupling AC Absolute max. input voltage range Bandwidth Input channels ERF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs Analog inputs Analog outputs Analog outputs Analog outputs Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages + 5V,+3,3V,-4V External ADC clock Yes EXTECHED IN CONNECTOR Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	RF INPUTS	
ADC resolution 16 bit Input impedance 50 0hm Full scale voltage range 0.5Vpp/-2dBm Input coupling AC Absolute max. input voltage range DC max 50V (AC-coupled) 1Vpp for RF Bandwidth 300 kHz - 550 MHz FF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs 4 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes EXTECHED TO Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	RF input channels	2
Input impedance Full scale voltage range Input coupling AC Absolute max. input voltage range Bandwidth IRF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/+4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz IEXTENSION CONNECTOR Digital IOS Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes IFF OUTPUTS SO Ohm 10	Sample rate	122.88 MS/s
Full scale voltage range Input coupling Absolute max. input voltage range Bandwidth IRF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/+4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz IEXTENSION CONNECTOR Digital IOS Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs 4 Analog outputs 4 Analog outputs 4 Analog outputs 12bit Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes IFYOUT STATE ACCOUNTED TOR Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	ADC resolution	16 bit
Input coupling Absolute max. input voltage range Bandwidth 300 kHz - 550 MHz Froutputs RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/+4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs 4 Analog inputs voltage range 100kS/s Resolution 12bit Analog outputs 4 Analog outputs 4 Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Input impedance	50 Ohm
Absolute max. input voltage range Bandwidth 300 kHz - 550 MHz RF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs 4 Analog inputs voltage range 100kS/s Resolution 12bit Analog outputs 4 Analog outputs 50 0hm 12bit Analog outputs 4 Analog outputs 4 Analog outputs 4 Analog outputs 4 Analog outputs voltage range 12C, SPI, UART Available voltages 12C, SPI, UART Available voltages External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Full scale voltage range	0.5Vpp/-2dBm
Bandwidth 300 kHz - 550 MHz RF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 Ohm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs 4 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Input coupling	AC
RF OUTPUTS RF output channels 2 Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS Analog inputs 4 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Absolute max. input voltage range	DC max 50V (AC-coupled) 1Vpp for RF
RF output channels Sample rate 122.88 MS/s DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS Analog inputs 4 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs voltage range 0-1,8V Communication interfaces I2C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Bandwidth	300 kHz - 550 MHz
Sample rate DAC resolution 16 bit Load impedance 50 0hm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS Analog inputs 4 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs voltage range Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	RF OUTPUTS	
DAC resolution Load impedance 50 Ohm Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs 4 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs 4 Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	RF output channels	2
Load impedance Voltage range 1Vpp/ +4 dBm Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS Analog inputs 4 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Over SATA connection (up to 500 Mbps)	Sample rate	122.88 MS/s
Voltage range Short circuit protection N/A, RF transformer & AC-coupled Connector type SMA Output slew rate Bandwidth Bandwidth SOU kHz - 60 MHz EXTENSION CONNECTOR Digital IOS Analog inputs Analog inputs voltage range Sample rate 100kS/s Resolution Analog outputs Analog outputs Analog outputs voltage range Communication interfaces I2C, SPI, UART Available voltages External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	DAC resolution	16 bit
Short circuit protection Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS Analog inputs 4 Analog inputs voltage range Sample rate 100kS/s Resolution Analog outputs 4 Analog outputs 4 Analog outputs Very Communication interfaces I2C, SPI, UART Available voltages External ADC clock Yes SYNCHRONIZATION Trigger input Daisy chain connection N/A, RF transformer & AC-coupled SMA N/A N/A RF transformer & AC-coupled SMA Output slew rate N/A 16 Analog MHz 60 Analog inputs 100kS/s Resolution 12bit 4 Analog outputs 4 Analog outputs 4 Analog outputs 4 Analog outputs voltage range 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Load impedance	50 Ohm
Connector type SMA Output slew rate N/A Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOS 16 Analog inputs 4 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces I2C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Voltage range	1Vpp/ +4 dBm
Output slew rate Bandwidth 300 kHz - 60 MHz EXTENSION CONNECTOR Digital IOs Analog inputs 4 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Short circuit protection	N/A, RF transformer & AC-coupled
Bandwidth EXTENSION CONNECTOR Digital IOS Analog inputs 4 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Connector type	SMA
Digital IOS 16 Analog inputs 4 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Output slew rate	N/A
Digital IOs Analog inputs 4 Analog inputs voltage range 0-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces I2C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Bandwidth	300 kHz - 60 MHz
Analog inputs Analog inputs voltage range O-3,5V Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs O-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	EXTENSION CONNECTOR	
Analog inputs voltage range Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs voltage range Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Digital IOs	16
Sample rate 100kS/s Resolution 12bit Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Analog inputs	4
Resolution 12bit Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Analog inputs voltage range	0-3,5V
Analog outputs 4 Analog outputs voltage range 0-1,8V Communication interfaces 12C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Sample rate	100kS/s
Analog outputs voltage range Communication interfaces I2C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Resolution	12bit
Communication interfaces I2C, SPI, UART Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Analog outputs	4
Available voltages +5V,+3,3V,-4V External ADC clock Yes SYNCHRONIZATION Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Analog outputs voltage range	0-1,8V
External ADC clock SYNCHRONIZATION Trigger input Daisy chain connection Through extension connector Over SATA connection (up to 500 Mbps)	Communication interfaces	I2C, SPI, UART
Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	Available voltages	+5V,+3,3V,-4V
Trigger input Through extension connector Daisy chain connection Over SATA connection (up to 500 Mbps)	External ADC clock	Yes
Daisy chain connection Over SATA connection (up to 500 Mbps)	SYNCHRONIZATION	
	Trigger input	Through extension connector
Ref. clock input N/A	Daisy chain connection	Over SATA connection (up to 500 Mbps)
	Ref. clock input	N/A