

SDR7000 Series

Software Defined Radio (SDR) Development Unit



This is an example of Peaks abilities and willingness to support customers with development requirements, reducing the workload on the customers R&D team, allowing their time to be dedicated to the SDR coding platform.








The **SDR7000 series** integrates a 3rd party SDR development kit along with support RF componentry into a 1RU chassis, providing a full user interface, remote control, power supplies etc.

The unit provides a vehicle for use during in-house alpha testing, through customer beta testing and as deliverables against early production phases of the project. Finally, higher quantity, application specific production designs can be customised and costs reduced in order to achieve commercial targets.

The **SDR7000 series** provide easy to use and comprehensive configuration & control features, fault monitoring protection, safe-start routines, multiple interface options and an in-built high stability reference facility. It incorporates a graphics display module, membrane keyboard and features a clear and intuitive control and configuration menu, fully utilising the unique graphics display.

Front panel connections include HDMI and USB for control of the development platform.

Peak Features

-  Compact; 1RU solution including dedicated and monitored power supplies for the chosen development kit
-  Integral 40MHz high stability OCXO with external reference
-  Chassis locations for ZC706 development kit and ADI FCOMMS5
-  1pps buffer circuitry
-  All USB connections to rear panel including UART and JTAG
-  Flexible application specific RF circuitry available
-  Ethernet connections to both chassis processor and development kit



SDR7000 series – Typical Specification

SDR Outputs

TX1	3 off, from integral wideband combiner, allowing connection to multiple internal TX ports
TX2 & TX3	from dedicated TX port
Connections	SMA (f), 50Ω Option 1a; F-Type (f), 75Ω

SDR Inputs

RX1	3 off, to integral wideband splitter, allowing connection to multiple internal RX ports
RX2 & RX3	from dedicated TX port
Connections	SMA (f), 50Ω Option 1b; F-Type (f), 75Ω

SDR Auxiliary Connections

AUX1	40MHz reference output, factory re-configurable
AUX2	Factory configurable
Connections	SMA (f), 50Ω Option 1c; F-Type (f), 75Ω

SDR General Connections

Time Ref.	BNC (f), 50Ω
Freq. Ref.	BNC (f), 50Ω
KMS	USB for keyboard, mouse & memory
UART	USB
JTAG	USB
ETH1, ETH2	RJ45

Front Panel Connections

HDMI	for keyboard or mouse HID
KMS	USB for keyboard, mouse & memory

Internal Reference

Frequency	40MHz
Adjustment	±1.0ppm, stepped 0.02ppm
Standard Stability	
Allan deviation	<5 x 10 ⁻¹⁰ over 1s
Ageing	<5 x 10 ⁻⁹ per 12 hrs, <5 x 10 ⁻⁷ per year
Temp stability	<5 x 10 ⁻⁸ over 0 to 40°C

Other

Mechanical

Width	19", standard rack mount
Height	1U (1.75")
Depth	534mm (21"), plus connectors
Construction	Stainless steel chassis
Weight	Approx. 9kgs (20lbs)

Environmental

Operating temp	0°C to +50°C
EMC	EN55022 part B & EN50082-1
Safety	EN60950

Power supply

Voltage	90-264VAC
Frequency	47-63Hz
Power	160 Watts max (configuration dependant)

Control System

Remote control	RS232/ 485 port Option 9; Ethernet; embedded web server & SNMP network management support.
Alarms	PSU fail External alarm inputs Summary failure relay (form C)

Options

- 1) F-Type (f), 75Ω, input connection
 - 9) Ethernet interface with embedded web server & SNMP
- Note; the addition of options can modify the typical specification, for details please consult the factory

Panel Views (typical)

