

DDSPA4X	
QUAD DDS driver with 4 outputs	
1/10/2022	

Specifications	Units	DDSPAxx
Number of outputs		4
Carrier frequency	MHz	10 to 400
Frequency Stability	ppm/°C	Nom +/- 1
Frequency step / Accuracy	KHz/Hz	LR: 15.259 KHz (15 bits) MR: 59.6 Hz (23 bits) HR: 0.23 Hz (31 bits)
Commutation/sweeping time	ns	≤ 100 (HR)
Output RF Power (@1dB compression)	W	Up to 10W (others on request)
Power supply	VAC	110-230, Laboratory version
Frequency Input Control FM		Digital 15 bits (LR) or 23 bits (MR) or 31 bits (HR) + 1 bit Enable/disable through DB44HD & USB
Amplitude Input Control AM		Digital 8 bits through DB44HD & USB
Phase Input Control PM		Digital 14 bits through DB15HD & USB
Rise Time / Fall time (10-90%)	ns	< 10ns @80MHz @2W, < 5ns @200MHz @2W
Harmonics	dBc	H2 > 30, H3 > 20
Output impedance	Ω	50
VSWR		< 1.2/1
Extinction Ratio	dB	Nom 45 (for F<250MHz)
Input / Output Connectors		DB44HD, DB15HD, USB / SMA
Dimensions		Rack 19", 2U, depth 500mm
Heat Exchange		Pulsed air with Fan
Operating Temperature	°C	10 to 40
Storage Temperature	°C	-40 to +70 Non condensing



Product Overview

The DDSPA4X (Direct Digital Synthesizers) is a rack with 4 outputs dedicated to high accuracy applications. Each output can be controlled independently either through parallel ports for fast communications or through USB. User has the possibility to not only control the frequency/amplitude of the 4 outputs but also their respective phases.

Features

- 4 x Outputs.
- Variable frequency in the range 10-400 MHz.
- AM control: Digital 8 bits.
- FM control: Digital 15 bits or 23 bits or 31 bits.
- PM control: Digital 14 bits
- Output RF power: 1W, 2.5W, 4W, 10W...
- Rack 110-230 VAC
- RoHS

Option on request: External clock 1GHz (Electronic) or 40MHz (Optical/Electronic)