

## Product Overview

The MPDSP1C2X is a 2 outputs driver based on DDS (Direct Digital Synthesizers) which offer high frequency accuracy and stability. Each DDS operates with a common clock reference so that they provide phase locked output signals when driven at same frequency. The frequency, phase and power are driven through USB/RS232 communication. External control signals allow user for fast AM control of the outputs. Embedded power amplifiers up to 4 watts per output. For higher power, AA will provide external power amplifiers.

### Features

- Phase Locked Outputs
- 2 Outputs
- Analog + Digital AM controls + USB/RS232 (FM+AM)
- Frequency and phase control (USB/RS232)
- Option HR (High frequency resolution 0.31Hz) on request
- RoHS

### Applications

High stability low frequency shifters, Multi-transducers AOMs/AODs, Multi modulators...



OEM version, MPDS1C2X

## Technical Specifications

Parameter	Units	
Number of outputs (X)		2
Reference clock		Internal Common Reference
Frequency range (MHz)	MHz	in [20-275]
Frequency Stability	ppm/°C	Nom +/- 1
Frequency Accuracy / frequency step	KHz	nom 1 (Option HR on request 0.31 Hz)
Phase Accuracy / phase step	°	0.022 (16384 steps over 2π)
Power/Frequency/Phase control		USB/RS232
Output RF Power (@1dB compression)	W	1 up to 4 watts/output with embedded amplifier (more power with external amp)
Power Supply OEM version	VDC	24 – nom 1.5A / 4W / output
Power Supply Laboratory version	VAC	110 – 230
External Modulation Input Controls (AM)	V	Analog 0-5/10kΩ (1 control per output)
External Blanking input Control (AM)	V	Digital TTL/1 KΩ (1 control per output)
Rise Time/Fall time (10-90%) < 4 watts	ns	<10 @100MHz
Output Impedance	Ω	50
VSWR		< 1.5/1
Extinction Ratio	dB	>45
Input / Output Connectors		DB15, USB / SMA
Size / Weight	mm <sup>3</sup>	83x120x27.7 (1MODD20005)

Heat Exchange		Conduction through baseplate for OEM versions
Operating Temperature	°C	10 to 40 (max Tcase 50°C)
Storage Temperature	°C	-40 to +70 Non condensing

\*SDK provided on request (USB/RS232 commands)

\*PC software provided on request

### Mechanical drawing (mm)

