MPDSExxnCmX

External Reference input, Phase Locked
Multi outputs, Multi channels DDS Synthesizer

Product Overview

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

Features

- Phase Locked Outputs, External Clock Reference
- Multi Outputs, Multi channels
- Analog AM controls + USB/RS232 (FM+AM)
- RoHS

Technical Specifications

Parameter	Units	
Number of outputs		1 to 4
Number of channels per output		Up to 2 per output
Reference clock		External Clock Reference / SMA
Frequency range (MHz)	MHz	In 20-200* (External clock frequency dependent)
Frequency Stability	ppm/°C	Nom +/- 1
Frequency Accuracy / frequency step	KHz	nom 1
Frequency control		USB/RS232
Output RF Power (@1dB compression)	W	Up to 4 watts/output with embedded amplifier (more power with external amp)
Power Supply OEM version	VDC	24 – nom 1A / 4W / output
Power Supply Laboratory version	VAC	110 – 230
External Modulation Input Controls (AM)	V	Analog 0-5 / 50Ω (1 control per channel)
External Blanking input Control (AM)	V	TTL / 1 KΩ common to all outputs
Rise Time/Fall time (10-90%) < 4 watts	ns	Nom 10
Input / Output Impedance	Ω	50
VSWR		< 1.5/1
Extinction Ratio	dB	Nom 50
Input / Output Connectors		DB25 / SMA
Size / Weight	mm^3	
Heat Exchange		Conduction through baseplate for OEM versions Stand alone (fan integrated) for laboratory versions
Operating Temperature	°C	10 to 40 (max Tcase 50°C)
Storage Temperature	°C	-40 to +70 Non condensing

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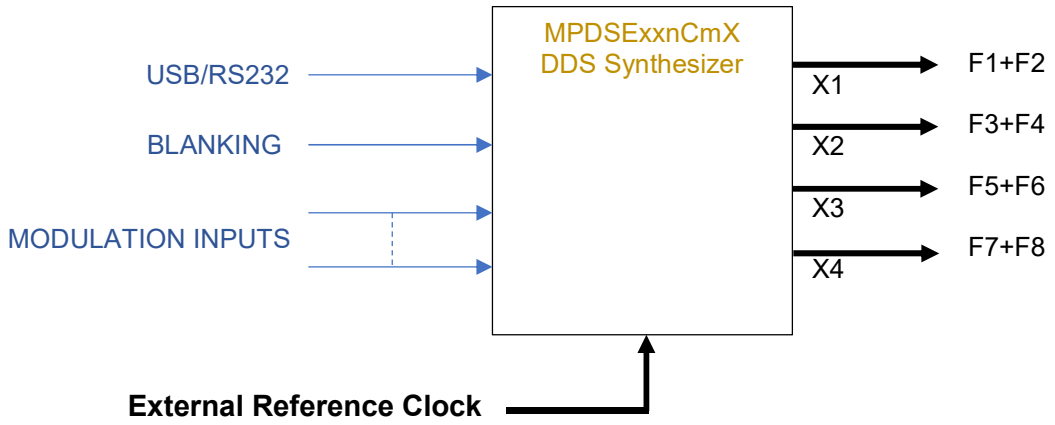
Available Versions

(m) Number of outputs → (n) Number of channels ↓	1	2	3	4
1	1C1X	1C2X	1C3X	1C4X
2	2C1X	2C2X	2C3X	2C4X

*Frequency range vs External Reference Clock

External REF Clock MHz	Frequency Range MHz
5	In 20-40
15	In 20-120
50	In 20-400
100	In 20-500
500	In 20-200

Synoptic



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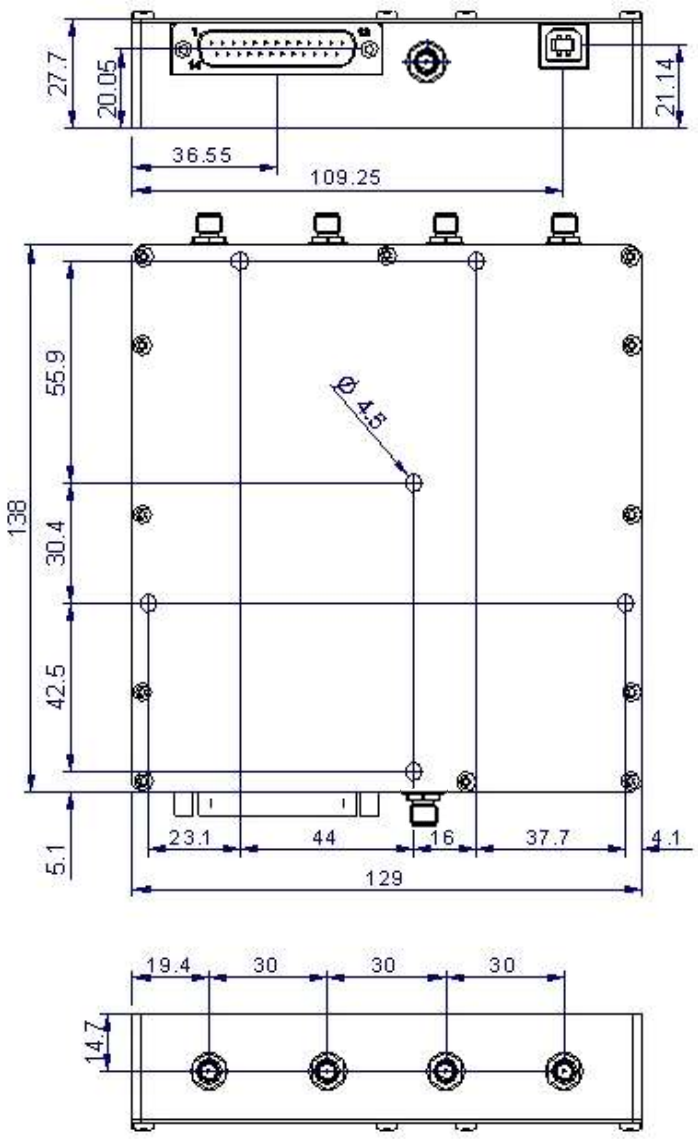
Mechanical drawing – MPDSExxnCmX



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