

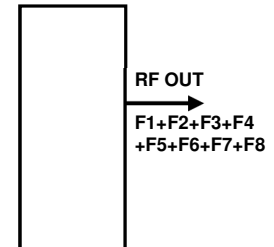
## Product Overview

These drivers based on Direct Digital Synthesizers (**DDS**), produce multiple fixed stable and accurate RF frequency signals for polychromatic modulators or modulators. Their design with "on the edge" technology offers unique performance in term of **accuracy, speed and stability (single/multi-line)**, thanks to their **low noise and high linearity design**.

The built in amplifier delivers the necessary RF power to drive the acousto-optic devices, with reduced power consumption (**AA "COLD DESIGN"**). **In case of Powers higher than 4 Watts, the association with an external power amplifier will be necessary.** The RF power per output can be individually modulated (MOD IN signals) or simultaneously modulated (BLANKING signal). AA focussed on a ultra low crosstalk version with superior fast/fall time.

The adjustments of the driver (Frequency & Power) can be done with a remote control, USB or through RS232 communication to allow user flexibility in power control or frequency scanning.

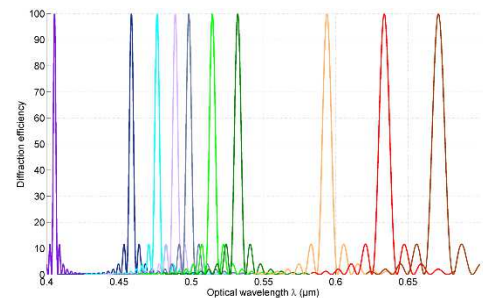
This new driver offers new driving functionalities with incomparable flexibility or the user, with increased speed.



USB, RS232, Bluetooth,

## Features

- Based on DDS (Direct Digital Synthesizer)
- 1, 4, 8 channels
- Full USB/RS232 control – Analog/Digital external controls
- Bluetooth Remote control
- Self sweeping / Fast frequency settling versions available
- Compact size - Low heat dissipation / High reliability
- Low Noise design
- RoHS Compliant – CE Compliant



## Applications

- Suitable to control simultaneously multi-line lasers
- Suitable to drive simultaneously multi-channel devices
- Biomedical, marking, material processing, printing...



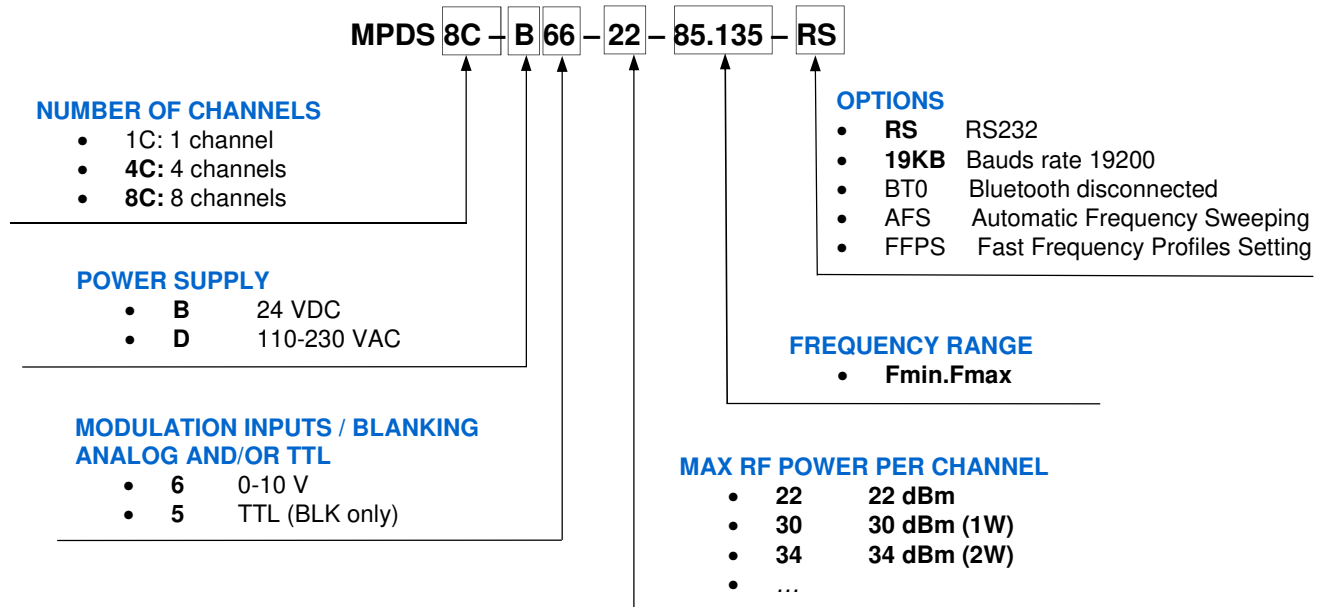
## Technical Specifications

Parameter	Specifications
Number of channels	1, 4, 8 (1 output)
Frequency Range	In [20 – 180], Adapted to AO devices
Frequency stability	+/-2 ppm/°C
Frequency accuracy	Nom 1 KHz
Frequency step	Nom 1 KHz
Frequency control	Remote Control (RC04-Bluetooth) / USB / <b>Option RS232</b>
Power supply	24 VDC (< 1A) (OEM), <b>Option 110-230 VAC (Laboratory Rack version)</b>
Rise time / Fall time	Nom 25 ns, < 50 ns
Modulation input control / External	0 – 10 V/ 10 KΩ, switchable to 0-5V through USB/RS232, 1 control per channel
Modulation input / BLK controls / Internal	Remote Control (RC03) / USB / <b>Option RS232 configurable</b>
Blanking* input control / External	0 – 10 / 10 KΩ, switchable to 0-5V through USB, 1 control per output
Extinction ratio	Nom 120 dB, MOD IN + BLANKING
Output RF power	[0, 22, 27, 30, 34, 36] dBm total, adapted to AO device
Output impedance	50 Ω
V.S.W.R.	< 1.5/1
Input connector	DB25 (Controls, Power Supply&RS232), SMC (Stab), USB
Output connectors	SMA (RF power)
Size	Lxlxh 154 x 92 x 24 mm <sup>3</sup> , Option 110-230VAC: Rack 19", 1U
Weight	Nom 0.5 kg, Option 110-230VAC: 4 kgs
Heat Exchange	Conduction through baseplate (OEM), Option 110-230VAC: standalone
Operating temperature	10 – 40 °C
Maximum Case temperature	55°C
Storage Temperature	-40 to +70°C, Non condensing
<b>OPTIONS ON REQUEST</b>	RS232 control (RS) Laboratory Rack 19", power supply 110-230VAC Version communication speed 19200bauds (19KB) Version with Bluetooth disconnected (BT0) Version with Function Automatic Frequency Sweeping (AFS) Version with Function Fast Frequency Profile Setting (FFPS)

*\*Blanking disabled on MDS1C unless otherwise requested*

**NOTE:** PC Software for USB/RS232 control: Free download on AA Website

### How to determine your model



### RC04 – Bluetooth Remote Control USB – RS232 Software for PC

The remote control RC04 is based on a contactless protocole type bluetooth. This allows user to adjust and modify set up of the MPDS driver at any time, in any configuration, even when the system is embedded inside a box or a rack. Remote control is based on a tablet using Android protocole. A special Application has been developed by AA OPTO-ELECTRONIC in order to modify the MPDS parameters. User can also adjust and modify set up of the MPDS driver thanks to USB or RS232 communication with a computer. AA OPTO-ELECTRONIC provides a software to simply communicate with the driver. The protocole is open and AA OPTO-ELECTRONIC can provide a SDK on request for Third Party Inteface development.

Parameters which can be modified are as follows: frequency per channel, power per channel, switch ON/OFF per channel, modify MOD IN signals from 0-10V to 0-5V, access to different automatic functions. Application is free and can be downloaded on AA Website.



**Mechanical drawing (OEM version, sizes in mm)**

