

# TeraXion

## RF Driver Unit (RF-DU)



**TeraXion's 200 MHz driver unit (RF-DU)** is a low rise time RF driver matched to its 10ns acousto-optic modulator (AOM). Its ultra-flat response delivers the perfect RF signal to extract the best performance from the AOM.

The RF-DU allows users to modulate the AOM from 0 to 100% duty cycle. This reduces the laser oscillators' fundamental repetition rate. In chirped-pulse amplification systems, a lower repetition rate increases each pulse's energy for more efficient processing.

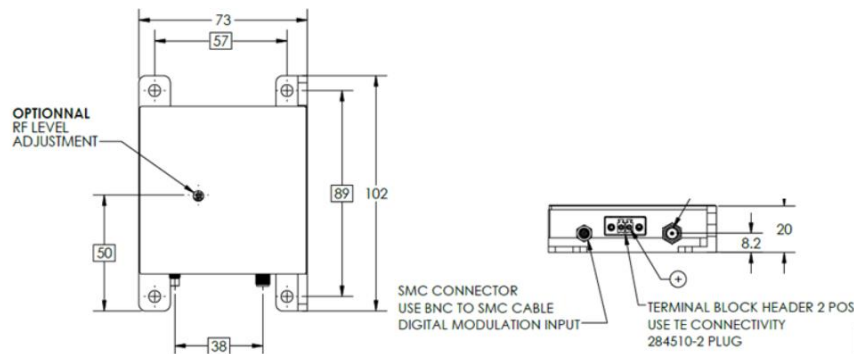
TeraXion's RF-DU is the result of more than 15 years of experience in ultrafast laser components, RF electronics and robust packaging.

### Top 5 Features

- **Ultra-flat response**
- **Low jitter**
- **Low rise time**
- **High extinction ratio**
- **Low harmonic distortion**

## 200MHz Driver Unit (RF-DU) for Acousto-Optic Modulator (AOM)

### Module Dimensions



### RF Output Specifications

Parameters		Units
RF connector	SMA, Female	
Output impedance	50	$\Omega$
RF Power	$\geq 2.0$	W
Frequency (fixed)	200.0	MHz
Frequency accuracy	$\pm 0.05$	%
RF Extinction ratio on/off	$\geq 50$	dBc
Harmonic Distortion	$\leq -20$	dBc
Rise/Fall time (10% - 90%)	$\leq 5$	ns
VSWR <sup>(1)</sup> at 200 MHz	$\leq 1.3:1$	N/A
Duty cycle	0 to 100	%

(1) Voltage standing wave ratio. Tested at low RF power (100-200 mW typ.).

### Digital Input Control

Parameters		Units
Input connector	SMC, Female	
Input impedance	50	$\Omega$
Voltage Range	0 – 5	V
Voltage Threshold level	1.25 (TTL compatible)	V

## 200MHz Driver Unit (RF-DU) for Acousto-Optic Modulator (AOM)

### Power Supply

Parameters		Units
Power Connector	Terminal Block Header, 2 pos. 3.5mm Mating: TE Connectivity #284510-2	
Supply Voltage (nominal)	+24 ± 5%	Vdc
Absolute Maximum	+28	Vdc
Supply Current (nominal)	425	mA

### Mechanical Specifications

Parameters		Units
Thermal load (typ.)	10	W
Base plate temperature	10 - 50	°C
Storage temperature	-40 to +85	°C
RoHS compliant	Yes	

### Ordering information

For orders, questions, specific requirements or to learn more TeraXion's products, contact us at [info@teraxion.com](mailto:info@teraxion.com)

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