



Gooch & Housego

enabling optical technologies

Product Catalogue

Gooch & Housego (Deutschland) GmbH

製品セレクションガイド A

Overview

Page

A2_	RF Q-Switch Drivers.....	2
S_	RF Driver System Boxes	3
A3_	RF Drivers for Acousto-Optic Modulators	4
A4_	Low Power RF PCB's for various Acousto-Optic Devices	4
B_	RF Amplifier.....	4
C0_	High Power RF Combiner.....	5
C6_	High Power RF Cable Splitter 1:2	5
P_	RF Filter	5
F003	Power VSWR-Measuring Devices	5

Sales

Sales Europe
Graham Catley
gcatley@goochandhousego.com
Tel: +44 1803 407893

Sales North America
Brent Gross
bgross@goochandhousego.com
Tel: +1 216 486 6100

Sales Asia-Pacific
Martin Cheng
mcheng@goochandhousego.com
Tel: +852 63486199

Manufacturer / Technical Support

GOOCH & HOUSEGO (DEUTSCHLAND) GMBH
STETTINER STRASSE 7
22850 NORDERSTEDT GERMANY
T: +49 40 528899-0 F: +49 40 5282863
E: sales.de@goochandhousego.com

www.goochandhousego.com

HRB 1509 NO Amtsgericht Kiel
Geschäftsführer: Dipl.-Ing. Udo-F. Hellmig, Gareth C.W. Jones
EG UST IDNR: DE 134849064
Steuer-Nr. 11 290 17947
WEEE-Reg.-Nr. DE 33853891

NCF-Catalogue_2008-07.doc

As part of our policy of continuous product improvement we reserve the right to change specifications at any time.



光技術をサポートする
株式会社オプトサイエンス
<http://www.optoscience.com>

東京本社 〒160-0014 東京都新宿区内藤町1番地 内藤町ビルディング
TEL: 03 (3356) 1064 FAX: 03 (3356) 3466 E-mail: info@optoscience.com
大阪支店 〒532-0011 大阪市淀川区西中島7-7-2 新大阪ビル西館
TEL: 06 (6305) 2064 FAX: 06 (6305) 1030 E-mail: osk@optoscience.com
名古屋営業所 〒450-0002 名古屋市中村区名駅2-37-21 東海ソフトビル
TEL: 052 (569) 6064 FAX: 052 (569) 8064 E-mail: ngo@optoscience.com

A2 RF Q-Switch Drivers



- first-class switching properties – shortest RF rise and fall times
- high frequency and power stability over a wide temperature range
- optimally qualified for any kind of first pulse suppression or grey scale applications due to analogue laser pulse control (LPC)
- safety shut down at over temperature and impedance mismatch, status indication
- EMC-safe design, power stage and control circuits separately grounded, entirely shielded
- supply voltage 24 VDC
- Ingenious interface options do match almost any application requirements with standard solutions:

Type	RF Power [W]	Standard Frequencies [MHz]					Cooling Selection		
		24	27.12	40.68	68	80	Conduction (Base Plate)	Air (Fan)	Water
		0	1	2	3	4			
A22_	8	✓	✓	✓	✓ ²⁾	✓	✓	-	-
A27_	15	✓	✓	✓	✓	✓	✓	-	-
A29_	25	✓	✓	✓	✓	✓	✓	✓	✓
A28_	50	✓	✓	✓	✓	✓	✓	✓	✓
A24_	75	✓	✓	✓	-	-	-	✓	✓
A25_	125	✓	✓	✓ ¹⁾	✓ ¹⁾	-	✓	✓	✓
A23_	200	✓	✓	✓ ²⁾	✓ ²⁾	-	✓ ²⁾	✓	✓

Notes:

- 1) 40.68 and 68 MHz versions: RF power maximum 100 Watt
- 2) On request

a) Standard analogue / digital modulation setup

Absolute maximum RF power level (P_{max}):
potentiometer pre-adjustment

Analogue modulation (Laser Pulse Control): 0 .. 100 % of P_{max} ,
various control voltages and impedances available:

- 0 .. 1 Volt / 50 Ω , 600 Ω , 1 k Ω or 4.7 k Ω ,
- 0 .. 5 Volt / 50 Ω , 600 Ω , 1 k Ω or 4.7 k Ω ,
- 0 .. 10 Volt / 600 Ω , 1 k Ω or 4.7 k Ω ,

Digital modulation: TTL levels,

various input impedances: 50 Ω , 600 Ω or 1 k Ω , 4.7 k Ω , 10 k Ω

Positive logic: TTL high => RF on / TTL low => RF off

Negative logic: TTL high => RF off / TTL low => RF on

b) Advanced analogue / digital modulation setup

Additional to the standard setup, the remaining RF power level is controlled by a second analogue modulation input. Thus the digital modulation signal does not toggle between (upper) analogue controlled RF power level and zero, but between the two RF power levels assigned by the two analogue modulation control voltages.

c) Zero Crossing

The zero crossing function allows, that on and off switching of the RF output power will happen exactly at zero level of the internal oscillator signal. This option includes also a sync output TTL signal.

d) Clock Output

The internal oscillator signal can be provided as a clock output TTL signal.

S RF Driver System Boxes



The S-series RF driver system is a flexible and easily customizable 19"-rack mountable platform for any of the A2-series Q-switch drivers.

- The maximum provided total RF power is 400 Watt.
- The power supply unit is included. The accepted input voltage range is from 110 to 240 Volt AC (50 .. 60 Hz).
- The system box can host 1 or 2 driver modules.
- RF output power can be lead out directly or split into 2 or 4 output channels.
- Water (2 units height) or fan (3 units height) cooled versions are available.
- Customizable control and interface design.

A3 RF Drivers for Acousto-Optic Modulators

- low profile housing
- various standard frequencies, other frequencies from 80 to 350 MHz available
- analogue and digital modulation
- EMC-safe design, power stage and control circuits separately grounded, entirely shielded
- supply voltage 24 V DC



Type	RF Power [W]	Standard Frequencies [MHz]								RF on/off ratio guaranteed at any RF output level	Follow-up Model for:
		80	100	110	150	200	250	300	350		
		<i>080</i>	<i>100</i>	<i>110</i>	<i>150</i>	<i>200</i>	<i>250</i>	<i>300</i>	<i>350</i>		
A36	2	✓	✓	✓	✓	✓	✓	✓	✓	TBD	A0_, A1_, A30_, A31_, A32_
A35	5	✓	✓	✓	✓	✓	✓	✓	✓	≥ 65 dB	A20_, A33_, A34_

A4 Low Power RF PCB's for various Acousto-Optic Devices

- miniature style, e.g. for frequency shifter housing integration
- no modulation
- custom design on request



Type	Input / Output Frequency [MHz]	Supply Voltage [V]	RF Power [mW]	Specifics
A408	- / 40	15	90	10 MHz monitor output, thermally stabilized oscillator
A410	- / 35	5	180	integrated oscillator
A414	80 / 40	15	200	frequency divider, DC filter, phantom power supply
A415	160 / 80	15	160	frequency divider

B RF Amplifier

- custom design on request

C0_ High Power RF Combiner

- custom design on request

C6_ High Power RF Cable Splitter 1:2

- up to 350 Watt
- BNC Input Connector



Type	Standard Frequencies [MHz]					Output Connector Selection	
	24	27.12	40.68	68	80	BNC	TNC
	0	1	2	3	4		
C61_	✓	✓	✓	✓	✓	✓	-
C62_	✓	✓	✓	✓	✓	-	✓

P_ RF Filter

- 20..200 MHz
- integrated attenuator
- custom design on request

F003 Power VSWR-Measuring Devices

- Nominal RF power range from 25 to 130 Watt
- Standard frequencies 24, 27.12, 40.68 and 68 MHz. Other frequencies on request.

