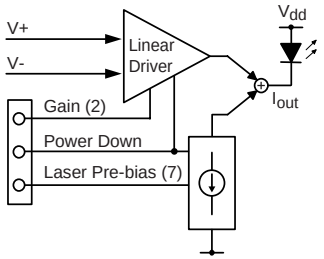
Linear Laser Driver version 2 (packaged) – I²C Communication Overview

Functional Block Diagram:



Gain setting (all channels are the same):

Gain Setting		Gain Value
Bit1	Bit0	
0	0	5mS
0	1	7.5mS
1	0	10mS
1	1	12.5mS – default at power-on

Addressing on all new versions of AOH:

I2C Address									I2C Data Byte							
hex	dec	Binary														
		–	A6	A5	A4	A3	A2	A1	A0	D7	D6	D5	D4	D3	D2	D1	D0
0x60	96	0	1	1	0	0	0	0	0		Chan.0 Bias: $I_{bias} \approx$ Byte[0-127] $\times$ 0.4mA						
0x61	97	0	1	1	0	0	0	0	1		Chan.1 Bias: $I_{bias} \approx$ Byte[0-127] $\times$ 0.4mA						
0x62	98	0	1	1	0	0	0	1	0		Chan.2 Bias: $I_{bias} \approx$ Byte[0-127] $\times$ 0.4mA						
0x63	99	0	1	1	0	0	0	1	1	–	SEU	G – Ch.2		G – Ch.1		G – Ch.0	

A6-A2 are hard-wired on the PCB
Two-channel analogue optohybrids use Chan.0 & Chan.2.
No byte-order swapping required. Writing 0 into a bias register disables that channel.
SEU – flag for SEU detection, read only.

Addressing on all new versions of DOH:

I2C Address									I2C Data Byte							
hex	dec	Binary														
		–	A6	A5	A4	A3	A2	A1	A0	D7	D6	D5	D4	D3	D2	D1	D0
0x70	112	0	1	1	1	0	0	0	0		Clock Channel Bias: $I_{bias} \approx$ Byte[0-127] $\times$ 0.4mA						
0x71	113	0	1	1	1	0	0	0	1		*Not Used*						
0x72	114	0	1	1	1	0	0	1	0		Data Channel Bias: $I_{bias} \approx$ Byte[0-127] $\times$ 0.4mA						
0x73	115	0	1	1	1	0	0	1	1	–	SEU	G – Ch.2		G – Ch.1		G – Ch.0	

A6-A2 are hard-wired on the PCB.
No byte-order swapping required. Writing 0 into a bias register disables that channel.
SEU – flag for SEU detection, read only.