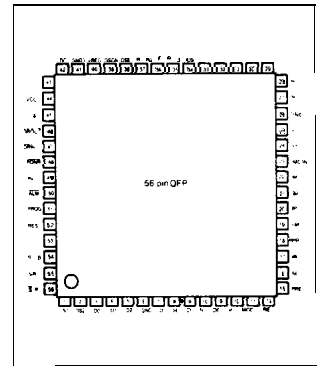
IR3C11

Description

This IR3C11, is an Automatic Power Controller (APC) for the magneto-optical disks in which incorporated the feature to enable steady laser beam output in the write/erase mode and read mode using the digital APC as used in combination with the IR3C10 (laser driver IC), to have permit on/off control of the optical output in the write/erase mode, and to have the analogue APC function in the read mode.



Features

- +5V power supply
- Driving current quantization error: 0.1%
- Digital APC function (write/erase and modes)
- Analogue APC function (read mode)
- Built-in reference voltage
- Variable optical output control reference voltage (8-bit input)
- Optical output modulation function (256 steps)
- Clock frequency: 1 MHz, max.
- Built-in offset output circuit
- TTL level logic input and output
- Uses either serial or parallel input for logic control
- 56-pin quad flat plastic molded package
- Bipolar silicon monolithic IC
- Not designed or rated as radiation hardened

Pin Assignment

Pin No.	Symbol	Signal name
1	DS1	Parallel input, TTL
2	DS2	Parallel input, TTL
3	D0	Parallel input, TTL
4	D1	Parallel input, TTL
5	D2	Parallel input, TTL
6	GND1	Gr
7	D3	Parallel input, TTL
8	D4	Parallel input, TTL
9	D5	Parallel input, TTL
10	D6	Parallel input, TTL
11	D?	Parallel input, TTL
12	VCCI	+ 5V power supply
13	VMOO	Optical output modulator DAC output
14	REXT1	Read amp gain control resistor
15	REXT2	Read amp gain control resistor
16	NC	
17	IRR1	Read amp current output
18	IRR2	Read amp current output
19	CM	End of setup detect line, TTL
20	PD	Photodiode
21	IM1	Optical output monitor voltage input
22	IM2	Optical output monitor voltage input
23	VMON	Optical output monitor reference voltage
24	VR	Reference voltage DAC output
25	VCCR	+5V power supply
26	GND2	Ground
27	NC	

Pin No.	Symbol	Signal name
29	BIN	Filter transistor input, TTL
30	C	Filter transistor, collector
31	I3	DAC3 current output
32	I2	DAC2 current output
33	I1	DAC1 current output
40	VREG	Reference voltage output
41	GND3	Ground
42	DO	Switching signal output
43	DATA	Switching signal input
44	VCC2	+5V power supply
45	CLK	Clock input
46	POROUT	Output disable signal monitor
47	PORIN	Output disable, TTL
48	PONR	Power-on-reset
49	INJ	12L injector
50	ALM	Laser fatigue alarm output
51	PROG	Test pin
52	RES	Counter reset
53	LD	Load input
54	STB	Strobe input
55	SR1	Serial input, TTL
56	S/P	Serial/parallel select

Connection Diagram (Example)

The following is an example of connection diagram using both IR3C10 and IR3C11.