PRELIMINARY
Notice : This is not a final specification
Some parametric limits are subject to change.

ML0131

FOR OPTICAL TRANSMITTER

DESCRIPTION

The laser driver IC were designed for use in 2.5Gb/s lightwave applications.

FEATURES

-High speed operation
tr/tf = 80ps (RL=25Ω)
-ECL/SCFL compatible interface
-Adjustable outout current
Iout = ˜60mA
-Low Power Dissipation
Vss = -5.2V, P_D = 700mW

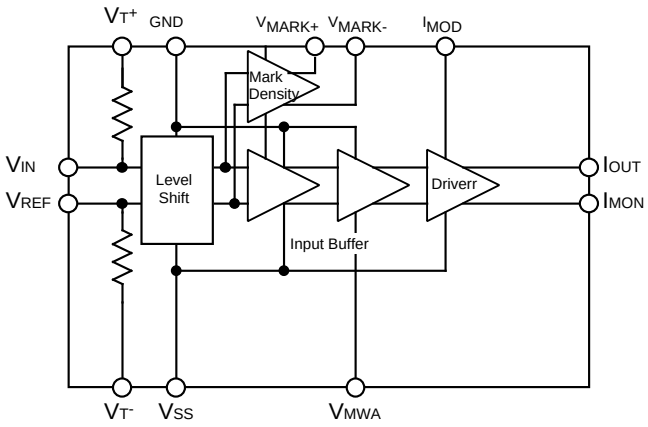
APPLICATION

- 2.5Gb/s optical transmitter

Photograph of Laser Driver IC

Package Size : 9.6mm x 7.6mm x 1.6mm

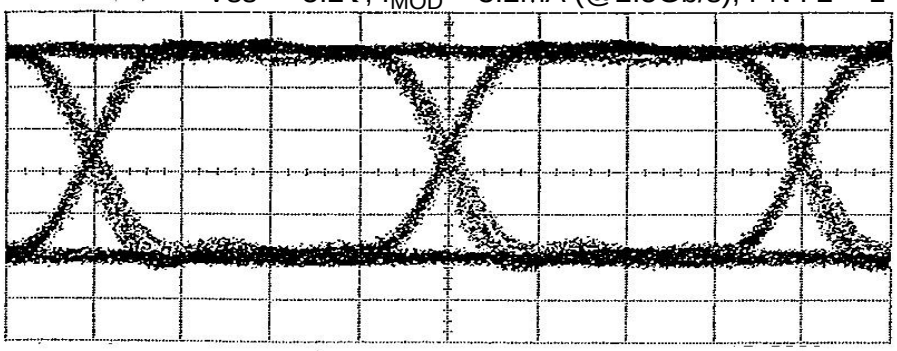
CIRCUIT DIAGRAM



TYPICAL CHARACTERISTIC (Ta = 25ºC)

Output waveform (@2.5Gb/s)

Vss = -5.2V, I_{MOD} = 3.2mA (@2.5Gb/s), PN : 2^{11}-1



10 mA/div. 100 ps/div.

PRELIMINARY

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FOR OPTICAL TRANSMITTER

ABSOLUTE MAXIMUM RATINGS (Ta = 25ºC)

Symbol	Parameter	Ratings	unit
V_{SS}	Supply Voltage	-7.5	V
V_{IN}	Input Voltage	V_{SS} to 0	V
Tc	Operating Temperature	-30 to +85	ºC
T_{stg}	Storage Temperature	-65 to +150	ºC

ELECTRICAL CHARACTERISTICS (Ta = 25ºC)

Symbol	Parameter	Test Conditions		Limits			unit
				Min	Typ	Max	
VSS	Supply voltage			-5.46	-5.2	-4.94	V
ISS	Supply current	V_{SS} = -5.2V		-	130	170	mA
V_{REF}	Input reference voltage	V_{SS} = -5.2V	ECL	-	-1.3	-	V
			SCFL	-	-0.5	-	V
V_{IN}	Input signal voltage	V_{SS} = -5.2V	ECL	-	0.8	-	V
			SCFL	-	1.0	-	V
I_{OUT}	Output modulation curvent	V_{SS} = -5.2V		40	-	60	mA
I_{MOD}	Adjust modulation current	V_{SS} = -5.2V		-	-	3.5	mA
tr	Rise time of modelation voltage	V_{SS} = -5.2V		-	80	-	ps
tf	Fall time of modulation voltage	V_{SS} = -5.2V		-	80	-	ps

BLOCK DIAGRAM OF TEST SYSTEM