

### Свойства

25.78Gb/s

1310нм DFB лазер

до 10км на 9/125 мкм одномодовом оптическом кабеле

цифровая диагностика (DDMI)

дуплексный LC коннектор

### Применение

25GBase-LR

#### ● Максимальные параметры

Parameter	Symbol	Min.	Typical	Max.	Unit
Storage Temperature	T <sub>s</sub>	-40		+85	°C
Case Operating Temperature	T <sub>A</sub>	0		70	°C
Maximum Supply Voltage	V <sub>cc</sub>	0		3.5	V
Relative Humidity	RH	0		85	%

#### ● Электрические характеристики (TOP = 0 to 70 °C, VCC = 3.135 to 3.465 Volts)

Parameter	Symbol	Min.	Typical	Max.	Unit	Note
Supply Voltage	V <sub>cc</sub>	3.135		3.465	V	
Supply Current	I <sub>cc</sub>			300	mA	
Power Consumption	P			1	W	
Data Rate	R	-	25.78		Gb/s	
<b>Transmitter Section:</b>						
Input differential impedance	R <sub>in</sub>		100		Ω	1
Tx Input Single Ended DC Voltage Tolerance (Ref VeeT)	V	-0.3		4	V	
Differential input voltage swing	V <sub>in,pp</sub>	200		600	mV	2
Transmit Disable Voltage	V <sub>D</sub>	2		V <sub>cc</sub>	V	3
Transmit Enable Voltage	V <sub>EN</sub>	V <sub>ee</sub>		V <sub>ee</sub> +0.8	V	

<b>Receiver Section:</b>						
Single Ended Output Voltage Tolerance	V	-0.3		4	V	
Rx Output Diff Voltage	$V_o$	300		900	mV	
LOS Fault	$V_{LOS\ fault}$	2		$V_{CC_H}$ OST	V	4
LOS Normal	$V_{LOS\ norm}$	Vee		Vee+ 0.8	V	4

Note:

1. Connected directly to TX data input pins. AC coupling from pins into laser driver IC.
2. Per SFF-8431 Rev 3.0
3. Into 100 ohms differential termination.
4. LOS is an open collector output. Should be pulled up with 4.7k – 10kΩ on the host board. Normal operation is logic 0; loss of signal is logic 1. Maximum pull-up voltage is 3.5V.

## ● Оптические параметры

Parameter	Symbol	Min.	Typical	Max.	Unit	Note
<b>Transmitter Section:</b>						
Center Wavelength	$\lambda_t$	1295		1325	nm	
spectral width(-20dB)	$\Delta\lambda$			1	nm	
Average Optical Power	$P_{avg}$	-7		+2.0	dBm	1
Laser Off Power	$P_{off}$			-30	dBm	
Side Mode Suppression Ratio		30				
Extinction Ratio	ER	3.5			dB	
Optical Return Loss Tolerance				-12	dB	
<b>Receiver Section:</b>						
Center Wavelength	$\lambda_r$	1260		1370	nm	
Receiver Sensitivity	$Sen$			-12	dBm	2
Los Assert	$LOS_A$	-30			dBm	
Los Dessert	$LOS_D$			-16	dBm	
Los Hysteresis	$LOS_H$	0.5			dB	
Overload		2			dBm	

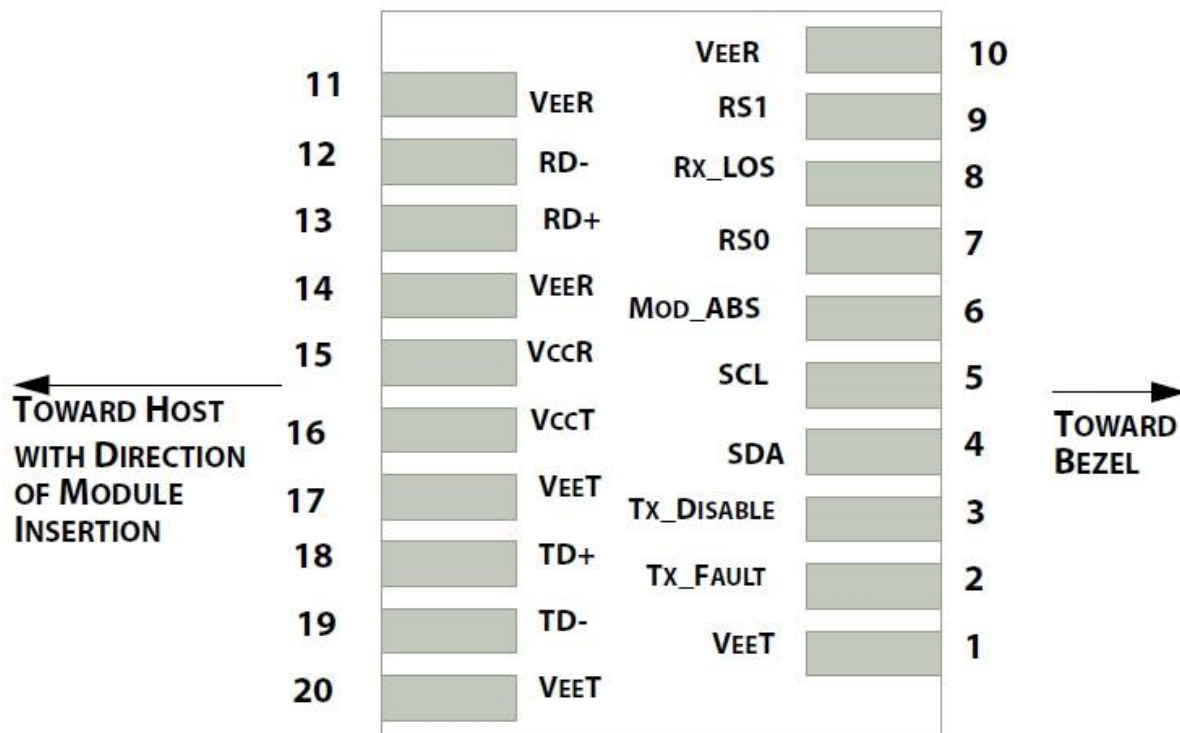
Note:

1. Average power figures are informative only, per IEEE802.3cc.
2. OMA receiver sensitivity is informative. Shall be measured with conformance test signal for .BER =5x10<sup>-5</sup>.

● **Timing Characteristics**

Parameter	Symbol	Min.	Typical	Max.	Unit
TX_Disable Assert Time	t_off			100	us
TX_Disable Negate Time	t_on			2	ms
Time to Initialize 2-wire interface	t_2w_start_up			300	ms
Time to Initialize	t_start_up			300	ms
Time to Initialize cooled module and time to power up a cooled module to Power level II	t_start_up_cooled			90	s
Time to Power Up to Level II	t_power_level2			300	ms
Time to Power Down from Level II	t_power_down			300	ms
Tx_Fault assert	Tx_Fault_on			1	ms
Tx_Fault assert for cooled module	Tx_Fault_on_cooled			50	ms
TX_FAULT Reset	t_reset	10			us
Rx_LOS assert delay	t_los_on			100	us
Rx_LOS negate delay	t_los_off			100	us

● **Контакты разъема SFP slot**



● **Описание контактов**

PIN #	Name	Function	Notes
1	VeeT	Module transmitter ground	1
2	Tx Fault	Module transmitter fault	2
3	Tx Disable	Transmitter Disable; Turns off transmitter laser output	3
4	SDL	2 wire serial interface data input/output (SDA)	4
5	SCL	2 wire serial interface clock input (SCL)	4
6	MOD-ABS	Module Absent, connect to VeeR or VeeT in the module	2
7	RS0	Rate select0: module inputs and are pulled low to VeeT with > 30 kΩ resistors in the module	
8	LOS	Receiver Loss of Signal Indication	
9	RS1	Rate select1: module inputs and are pulled low to VeeT with > 30 kΩ resistors in the module.	
10	VeeR	Module receiver ground	1
11	VeeR	Module receiver ground	1
12	RD-	Receiver inverted data out put	
13	RD+	Receiver non-inverted data out put	
14	VeeR	Module receiver ground	1
15	VccR	Module receiver 3.3V supply	
16	VccT	Module transmitter 3.3V supply	
17	VeeT	Module transmitter ground	1
18	TD+	Transmitter non-inverted data out put	
19	TD-	Transmitter inverted data out put	
20	VeeT	Module transmitter ground	1

Note:

1. The module ground pins shall be isolated from the module case.
2. This pin is an open collector/drain output pin and shall be pulled up with 4.7K-10Kohms to Host\_Vccon the host board.
3. This pin shall be pulled up with 4.7K-10Kohms to VccT in the module.
4. This pin is an open collector/drain output pin and shall be pulled up with 4.7K-10Kohms to Host\_Vccon the host board.

● Размеры

