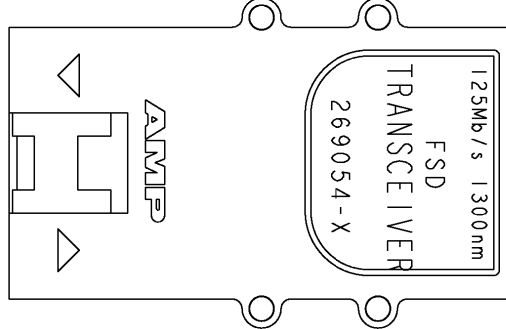
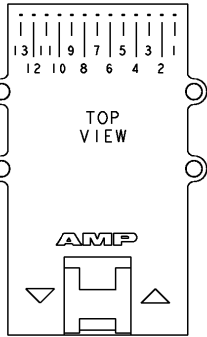
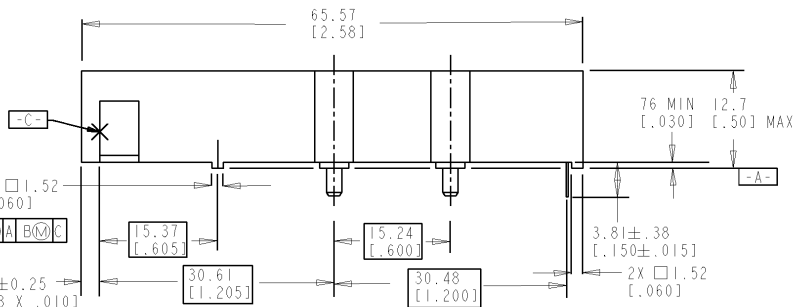
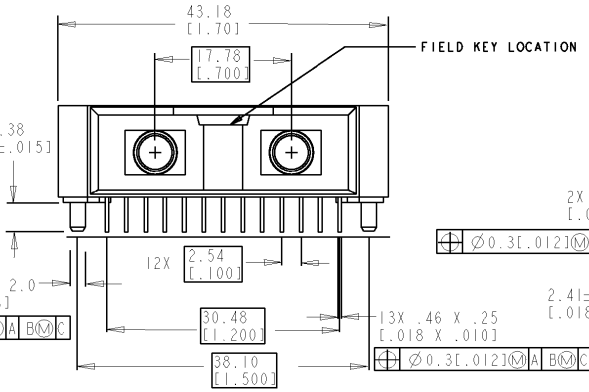


**PIN ASSIGNMENTS**

- 1 VEE<sub>Rx</sub>
- 2 Rx DATA OUT
- 3 Rx DATA OUT
- 4 SIGNAL DETECT
- 5 SIGNAL DETECT
- 6 VCC<sub>Rx</sub>
- 7 NO CONNECTION
- 8 NO CONNECTION
- 9 VCC<sub>Tx</sub>
- 10 Tx DATA IN
- 11 Tx DATA IN
- 12 V<sub>OB</sub>
- 13 VEE<sub>Tx</sub>



35.56 ± .25  
[1.40 ± .01]  
-B-



269054-5	FIELD KEY
269054-4	OBSOLETE
269054-3	OBSOLETE
269054-2	OBSOLETE
269054-1	OBSOLETE
PART No	DESCRIPTION

THIS DRAWING IS A CONTROLLED DOCUMENT FOR AMP INCORPORATED. IT IS SUBJECT TO CHANGE AND THE CONTROLLING ENGINEERING ORGANIZATION SHOULD BE CONTACTED FOR THE LATEST REVISION.		DWN T. JAMES 3JAN00 CHK A. GOLDBERG APVD - NAME - PRODUCT SPEC 108-55003 APPLICATION SPEC - WEIGHT - CUSTOMER DRAWING	<b>AMP</b> AMP Incorporated Harrisburg, PA 17105-3608 <b>TRANSCEIVER MODULE</b> STANDARD 13 PIN, MOLDED OPTICS 1300nm, 125 Mb/s, FIELD KEYABLE SIZE A3 CAGE CODE 00779 DRAWING NO C-269055 SCALE NTS SHEET 1 OF 3 REV A
DIMENSIONS: mm [INCHES]	TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±- 1 PLC ±0.1 2 PLC ±0.01 3 PLC ±0.001 4 PLC ±0.0001 ANGLES ±-		
MATERIAL - FINISH -			

LOC	DIST	REVISIONS			
P	LTR	DESCRIPTION	DATE	DWN	APVD
		SEE SHEET 1			

PERFORMANCE SPECIFICATIONS 125 Mb/s RECEIVER (T A = 0-70°C, V<sub>CC</sub> - V<sub>EE</sub> = 4.75-5.25V DC)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
DATA RATE (NRZ)	B	-	10	-	125	Mb/s
OPTICAL INPUT (AVG) SENSITIVITY	P <sub>IN</sub>	.275NA 62.5/125μm FIBER B=125Mb/s, BER ≤ 2.5X10 <sup>-10</sup>	-33.5	-	-14.0	dBm
OPTICAL WAVELENGTH	λ <sub>IN</sub>	-	1270	-	1380	nm
DUTY CYCLE	-	-	25	50	75	%
OUTPUT RISE TIME	t <sub>TLH</sub>	20-80%, 50Ω TO V <sub>CC</sub> -2V	.5	-	2.5	ns
OUTPUT FALL TIME	t <sub>THL</sub>	80-20%, 50Ω TO V <sub>CC</sub> -2V	.5	-	2.5	ns
PULSE WIDTH DISTORTION	-	50Ω TO V <sub>CC</sub> -2V	-	-	0.4	ns
DATA DEPENDENT JITTER	t <sub>DDJ</sub>	50Ω TO V <sub>CC</sub> -2V	-	-	0.8	ns
OUTPUT VOLTAGE LEVELS	V <sub>OH</sub> V <sub>OL</sub>	50Ω TO V <sub>CC</sub> -2V	V <sub>CC</sub> -1.025 V <sub>CC</sub> -1.81	-	V <sub>CC</sub> -0.88 V <sub>CC</sub> -1.62	V
SIGNAL DETECT (OUTPUT)	V <sub>A</sub> V <sub>D</sub>	P <sub>IN</sub> ≥ P <sub>A</sub> , 50Ω TO V <sub>CC</sub> -2V P <sub>IN</sub> ≥ P <sub>A</sub> , 50Ω TO V <sub>CC</sub> -2V	V <sub>CC</sub> -1.025 V <sub>CC</sub> -1.81	-	V <sub>CC</sub> -0.88 V <sub>CC</sub> -1.62	V
P <sub>IN</sub> POWER LEVELS (AVG)	P <sub>D</sub> P <sub>A</sub>	-	-41.0 OR P <sub>B</sub> -39.5	-	-32.5 -31	dBm dBm
DEASSERT	-	-	1.5	2.0	-	dB
ASSERT	-	-	-	-	350	μs
HYSTERESIS	-	-	-	-	100	μs
SIGNAL DETECT DELAY TIME	-	-	-	-	5.0	V
DEASSERT	-	-	-	-	110	mA
ASSERT	-	-	-	-	70	°C
POWER SUPPLY VOLTAGE	V <sub>CC</sub> - V <sub>EE</sub>	-	4.75	5.0	5.25	V
SUPPLY CURRENT	I <sub>CC</sub> OR I <sub>EE</sub>	-	-	-	110	mA
OPERATING TEMPERATURE	T <sub>A</sub>	-	0	-	70	°C
<b>ABSOLUTE MAXIMUM RATINGS</b>						
STORAGE TEMPERATURE	-	-	-40	-	100	°C
LEAD SOLDERING LIMITS	-	-	-	-	240/110	°C/s
POWER SUPPLY VOLTAGE	V <sub>CC</sub> - V <sub>EE</sub>	-	-0.2	-	7.00	V

NOTES:

1. 2<sup>15</sup>-1 PRBS. CENTER OF EYE OPENING.
2. DIMENSIONS IN ( ) ARE IN INCHES.
3. MEASURED USING FDDI TEST SIGNALING FORMAT ANSI X3.166-1990.
4. P<sub>B</sub> = POWER AT WHICH BER = .01.
5. PIN/LEAD PLATING: 150 MIN MICROINCHES 93/7 TIN/LEAD OVER 50 MIN MICROINCHES NICKEL.
6. CONFORMS TO ANSI X3.166-1990.
7. DOES NOT INCLUDE CURRENT DRAWN BY ECL OUTPUT LOADS.
8. UNIT PROVIDED WITH PROCESS PLUG TO PROTECT OPTICAL PORTS DURING SOLDERING AND CLEANING.
9. CASE MATERIAL: POLYETHERIMIDE  
MOUNTING PIN MATERIAL: BRASS  
LEAD MATERIAL: PHOSPHOR BRONZE

<small>THIS DRAWING IS A CONTROLLED DOCUMENT FOR AMP INCORPORATED. IT IS SUBJECT TO CHANGE AND THE CONTROLLING ENGINEERING ORGANIZATION SHOULD BE CONTACTED FOR THE LATEST REVISION.</small>		DWN T. JAMES 3 JAN 00 CHK A. GOLDBERG JPYVD -	AMP Incorporated Harrisburg, PA 17105-3608
DIMENSIONS: mm [INCHES] TOLERANCES UNLESS OTHERWISE SPECIFIED: 0. PLC ±.1 1. PLC ±0.1 2. PLC ±0.01 3. PLC ±0.001 4. PLC ±0.0001 ANGLES ±.1		NAME PRODUCT SPEC APPLICATION SPEC WEIGHT	TRANSCEIVER MODULE STANDARD 13 PIN, MOLDED OPTICS 1300nm, 125 Mb/s, FIELD KEYABLE SIZE A3 CAGE CODE 00779 DRAWING NO. C-269055
MATERIAL	FINISH	CUSTOMER DRAWING	SCALE NTS SHEET 2 OF 3 REV A

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LOC	DIST	REVISIONS				
P	LTR	DESCRIPTION	DATE	DWN	APVD	
DR	I	SEE SHEET 1				

PERFORMANCE SPECIFICATIONS 125 Mb/s TRANSMITTER (T<sub>A</sub> = 0-70°C, V<sub>CC</sub>-V<sub>EE</sub> = 4.75-5.25V DC)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYPICAL	MAX	UNITS
DATA RATE (NRZ)	B	-	0	-	125	Mb/s
OPTICAL OUTPUT (AVG)	P <sub>IN</sub>	-0.275NA 62.5/125μm FIBER B=125Mb/s 50% DUTY CYCLE	-19.0	-	-14.0	dBm
EXTINCTION RATIO	[P <sub>OL</sub> /P <sub>OH</sub> ] x 100%	-	-	-	10	%
OPTICAL WAVELENGTH	λ <sub>OUT</sub>	CENTER	1270	1330	1380	nm
SPECTRAL WIDTH (SEE FIG. 1)	Δλ	FWHM	-	130	-	nm
DUTY CYCLE	-	-	0	-	100	%
OUTPUT RISE TIME	t <sub>TLH</sub>	10-90%	.6	1.5	3.5	ns
OUTPUT FALL TIME	t <sub>THL</sub>	90-10%	.6	1.5	3.5	ns
PULSE WIDTH DISTORTION	t <sub>DCD</sub>	(PEAK-PEAK)	-	-	0.60	ns
DATA DEPENDENT JITTER	t <sub>DDJ</sub>	(PEAK-PEAK)	-	-	0.60	ns
RANDOM JITTER	t <sub>RAN</sub>	(PEAK-PEAK)	-	-	0.60	ns
DATA INPUTS	V <sub>IL</sub> V <sub>IH</sub> I <sub>IL</sub> I <sub>IH</sub>	-	V <sub>CC</sub> -1.81 V <sub>CC</sub> -1.165 -2 -	-	V <sub>CC</sub> -1.475 V <sub>CC</sub> -.88 - 400	V V μA μA
REFERENCE VOLTAGE (OUTPUT)	V <sub>BB</sub>	-	V <sub>CC</sub> -1.396	-	V <sub>CC</sub> -1.24	V
POWER SUPPLY VOLTAGE	V <sub>CC</sub> - V <sub>EE</sub>	-	4.75	5.0	5.25	V
SUPPLY CURRENT	I <sub>CC</sub> OR I <sub>EE</sub>	-	-	-	160	mA
OPERATING TEMPERATURE	T <sub>A</sub>	-	0	-	70	°C
<b>ABSOLUTE MAXIMUM RATINGS</b>						
STORAGE TEMPERATURE	-	-	-40	-	100	°C
LEAD SOLDERING LIMITS	-	-	-	-	240/10	°C/s
SUPPLY VOLTAGE	V <sub>CC</sub> - V <sub>EE</sub>	-	-2	-	7.00	V

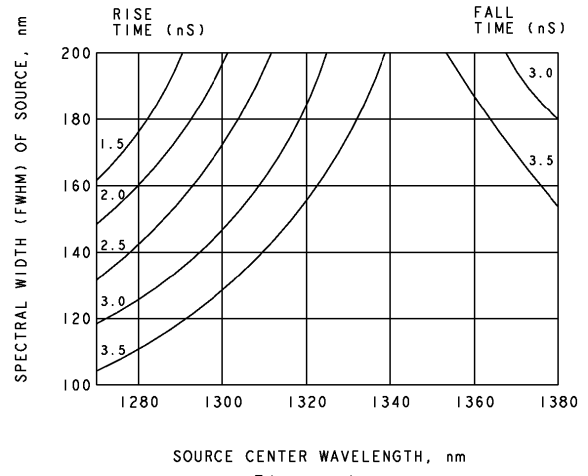


Figure 1  
 MAXIMUM ALLOWED SOURCE SPECTRAL WIDTH AS A FUNCTION OF SOURCE CENTER WAVELENGTH FOR VARIOUS SOURCE RISE AND FALL TIMES. THESE SPECIFICATIONS IN CONJUNCTION WITH THE FIBER'S CHROMATIC DISPERSION AND MODAL BANDWIDTH PARAMETERS GIVEN IN CLAUSE 10, ANSI X3.166-1990, RESULT IN AN OPTICAL RISE TIME OF LESS THAN 5.0ns EXITING A 2km FIBER CABLE. CURVES ARE SHOWN FOR SOURCE RISE AND FALL TIME RANGING FROM 1.5ns TO 3.5ns.

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MATERIAL - FINISH -	SIZE A3 CAGE CODE 00779	DRAWING NO. C-269055 SCALE NTS SHEET 3 OF 3 REV A	CUSTOMER DRAWING