TEST REPORT

ON

2 TO 18 GHz

HIGHLY SENSITIVE

THRESHOLD DETECTOR

PMI MODEL No:

TD-30E-SHS-218-30DBAMP

Serial Number: PM808220

DESIGNED
BY
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TESTED
BY
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REPORTED
BY
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September 10, 2004

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T32-EJE-TD-0904

HIGHLY SENSITIVE THRESHOLD DETECTOR
AMC MODEL No: TD-30E-SHS-218-30DBAMP

FEATURES:

- HIGH SENSITIVITY
- HIGH SPEED
- MINIATURE PACKAGE
- ECL OUTPUT LOGIC

SPECIFICATIONS:

• FREQUENCY	:	2 TO 18 GHz
• MINIMUM SIGNAL LEVEL FOR THRESHOLD DETECTOR TO RESPOND	:	-45 dBm ± 2.5 dBm
• PROPAGATION DELAY FROM 50% LOGIC OUTPOUT ON LEADING EDGE FOR AN INPUT OF -45 dBm	:	10 nSEC TYPICAL, 20 nSEC MAXIMUM
• PROPAGATION DELAY FROM 50% RF INPUT TO 50% LOGIC WHEN INPUT -20 dBm	:	10 nSEC TYPICAL, 20 nSEC MAXIMUM
• DC POWER +12V (NO LOAD)	:	250 mA MAXIMUM
• DC POWER -12V (NO LOAD)	:	120 mA MAXIMUM

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PRODUCT FEATURE

DESCRIPTION

PMI MODEL NO.: TD-30E-SHS-218-30DBAMP IS AN ULTRA-HIGH SPEED, HIGH SENSITIVITY THRESHOLD DETECTOR DESIGNED FOR BROAD BAND APPLICATIONS IN THE 2 to 18 GHz FREQUENCY RANGE. THIS IS A MINIATURE UNIT WITH ECL OUTPUT LOGIC.

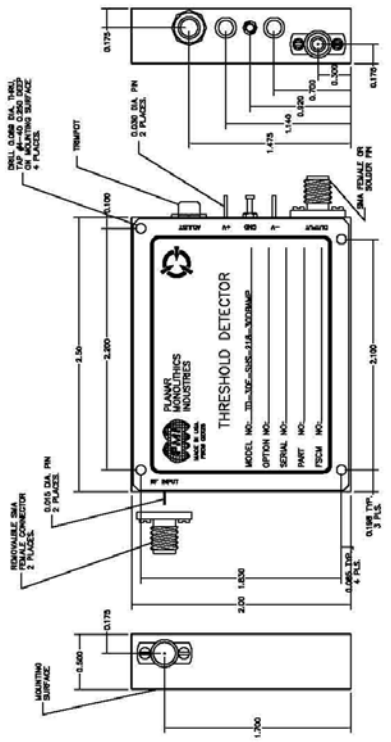
SPECIFICATIONS

- FREQUENCY RANGE: ..... 2 TO 18 GHz
- MINIMUM SIGNAL LEVEL FOR THRESHOLD DETECTOR TO RESPOND ..... -45 dBm ± 2.5 dBm
- PROPAGATION DELAY FROM 50% LOGIC OUTPUT ON LEADING EDGE FOR AN INPUT OF -45 dBm ..... 10 nSEC (TYP), 20 nSEC (MAX)
- PROPAGATION DELAY FROM 50% RF INPUT TO 50% LOGIC WHEN INPUT -20 dBm ..... 10 nSEC (TYP), 20 nSEC (MAX)
- DC POWER +12V (NO LOAD) ..... 250 mA (MAX)
- DC POWER -12V (NO LOAD) ..... 120 mA (MAX)
- SIZE: ..... 2.5"(L) X 2.0"(W) X 0.5"(H)

ENVIRONMENTAL RATINGS

- **TEMPERATURE:** ..... -55°C TO +85°C (OPERATING)
  -65°C TO +125°C (STORAGE)
- **HUMIDITY:** ..... MIL-STD-202F, METHOD 103B COND. B
- **SHOCK:** ..... MIL-STD-202F, METHOD 213B COND. B
- **VIBRATION:** ..... MIL-STD-202F, METHOD 204D COND. B
- **ALTITUDE:** ..... MIL-STD-202F, METHOD 105C COND. B
- **TEMPERATURE CYCLE:** .... MIL-STD-202F, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION



REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	–	ORIGINAL RELEASE JOB# 70915P	9/10/04	

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ISO 9001:2000 CERTIFIED

	APPROVALS	DATE
DRAWN	gfg	9/10/04
CHECKED		
ISSUED		

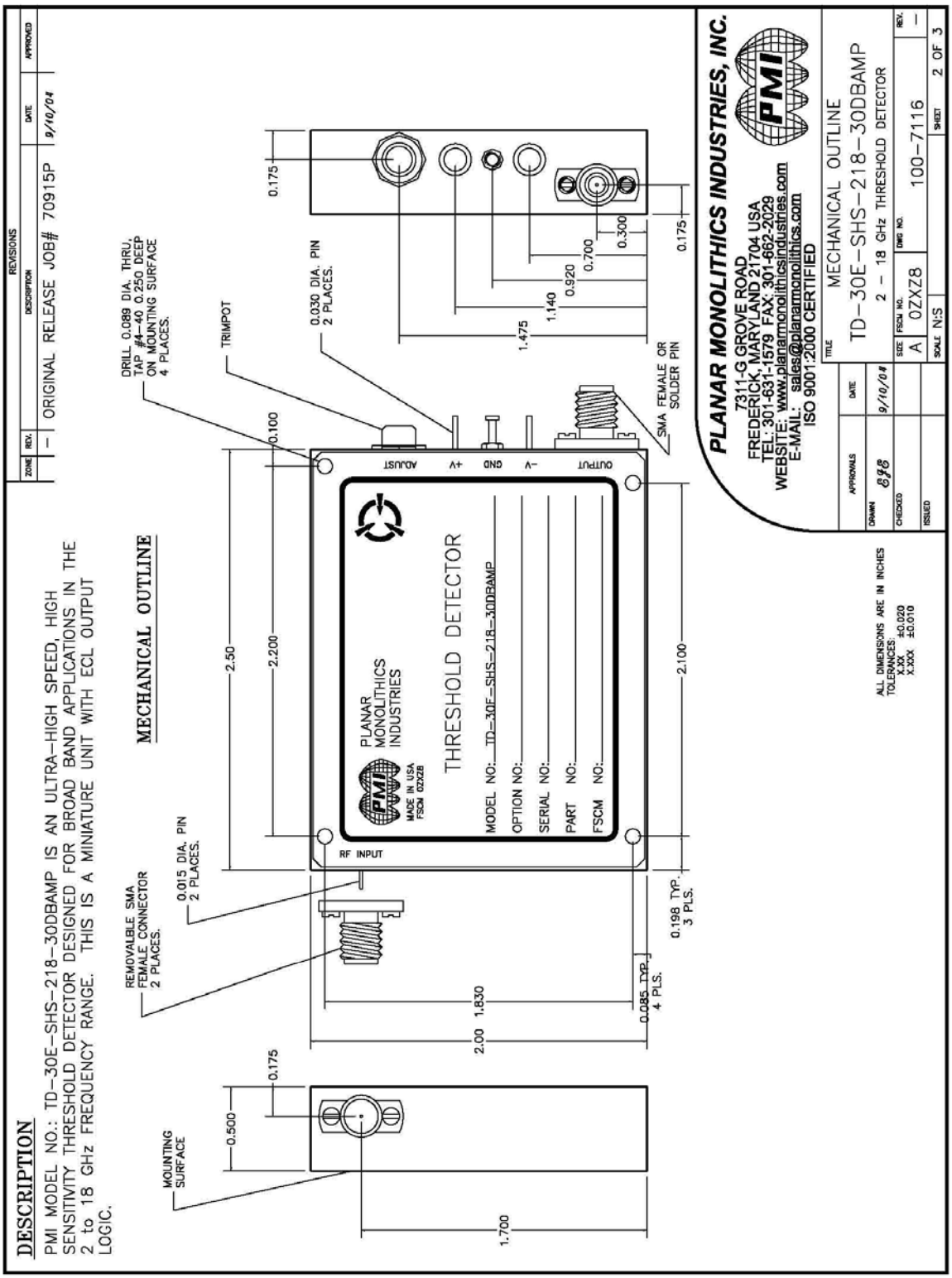
TITLE: PRODUCT FEATURE
TD-30E-SHS-218-30DBAMP
2 - 18 GHz THRESHOLD DETECTOR

SIZE	FSCM NO.	DWG NO.	REV.
A	0ZXZ8	100-7116	–

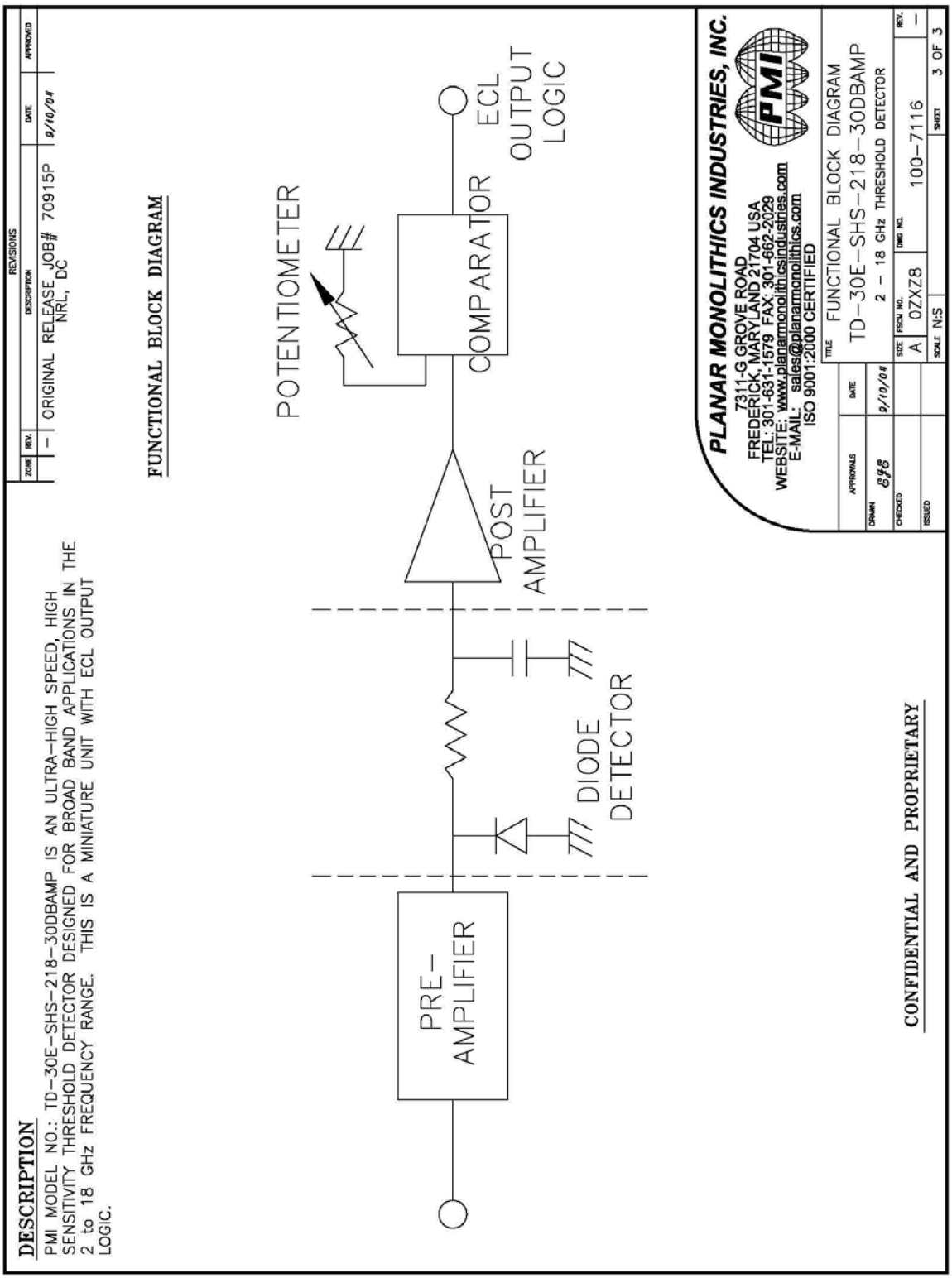
SCALE N:S | SHEET 1 OF 3

ALL DIMENSIONS ARE IN INCHES
TOLERANCES: X.XX ±0.020, X.XXX ±0.010

OUTLINE DRAWING



FUNCTIONAL SCHEMATIC



T32-EJE-TD-0904

FINAL TEST DATA

PMI MODEL NO: TD-30E-SHS-218-30DBAMP, SERIAL NUMBER: PM808220

FORM: TD-08/0898

PLANAR MONOLITHICS INDUSTRIES
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JOB NO: 70915P

SUMMARY TEST DATA
ON
HIGH SPEED THRESHOLD DETECTOR

CUSTOMER: NRL
JOB NO: 70915P
MODEL NO: TD-30E-SHS-218-30DBAMP
SERIAL NO: PM808 220

TESTED BY: fA
TEMPERATURE: 25C
DATE: 8/7/98

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	Frequency Range	2 - 18 GHz	2-18GHz	✓
3	Minimum Signal level for threshold detector to respond	-45 dBm ±2.5 dBm	✓	✓
6	Propagation Delay from 50% Logic Output on Leading Edge for an Input of -45 dBm	10 nSEC (Typical) 20 nSEC max.	10 nS	✓
7	Propagation Delay from 50% RF Input to 50% Logic when Input -20 dBm	10 nSEC (Typical) 20 nSEC max.	4 nS	✓
10	D.C. Power +12V (NoLoad)	250 mA (Max)	220 mA	✓
11	D.C. Power -12V (No Load)	120 mA (Max)	118 mA	✓

PRODUCTION MANAGER APPROVAL: _____ DATED: _____

QA/QC APPROVAL: Q2 Rose Marie Cheeks DATED: 8-10-98

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