TEST DATA

ON

16.0 TO 16.5 GHz

1.5dB LOW LOSS

HIGH POWER LIMITER

WITH

RF INPUT POWER HANDLING

OF

160 WATTS PEAK, 40 WATTS AVERAGE

WITH

A 25% DUTY CYCLE AND A 15 μS PULSE WIDTH

PMI MODEL No:

LM-161605-10W1

With Option HPR

Serial Numbers: PM506161, PM506162 & PM506163

DESIGNED & TESTED
BY
BRENT BAKER

REPORT BY
P. WOOD

SEPTEMBER 1, 2005

TABLE OF CONTENTS

ENVIRONMENTAL SPECIFICATIONS

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

16.0 TO 16.5 GHz, HIGH POWER, MINIATURE, LIMITER
PMI MODLE No: LM-161605-10W1-HPR

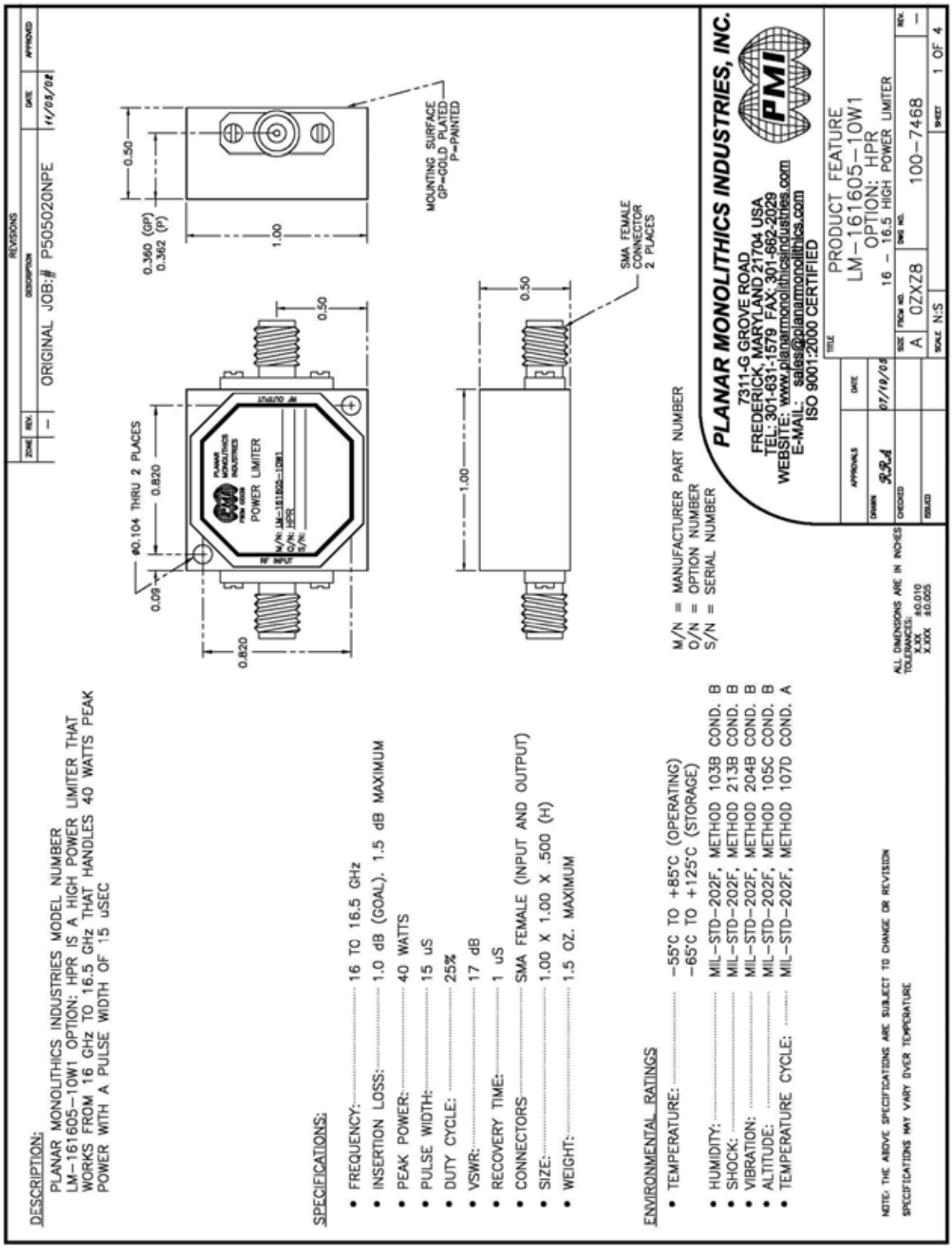
KEY FEATURES:

- 160 WATTS PEAK
- 1.5dB LOW INSERTION LOSS
- 15μS PULSE WIDTH

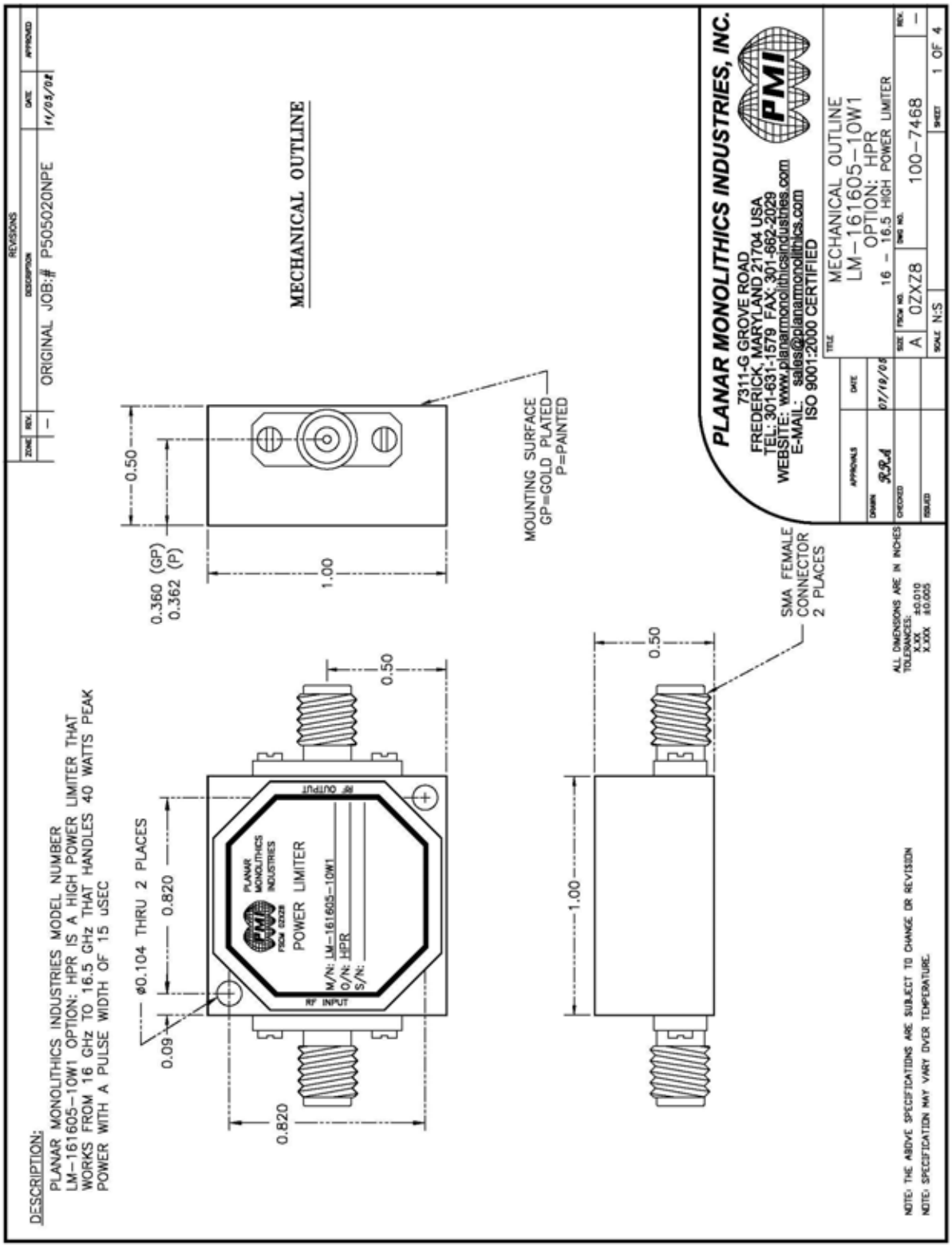
SPECIFICATIONS:

FREQUENCY RANGE	16.0 TO 16.5 GHz
INSERTION LOSS	≤1.5dB
VSWR (Input & Output Return Loss)	≥17dB (1.32:1)
RF INPUT POWER	160 WATTS PEAK 40 WATTS AVERAGE
PULSE WIDTH	≤15.0 μS
DUTY CYCLE	≤25%
RF LEAKAGE	13dBm MAXIMUM
LIMITING THRESHOLD	+5dBm TYPICAL
RECOVERY TIME	≤1.0 μS
CONNECTORS	SMA FEMALE (Input & Output)
SIZE	1.00” X 1.00” X 0.500”
WEIGHT	1.5 oz. MAXIMUM

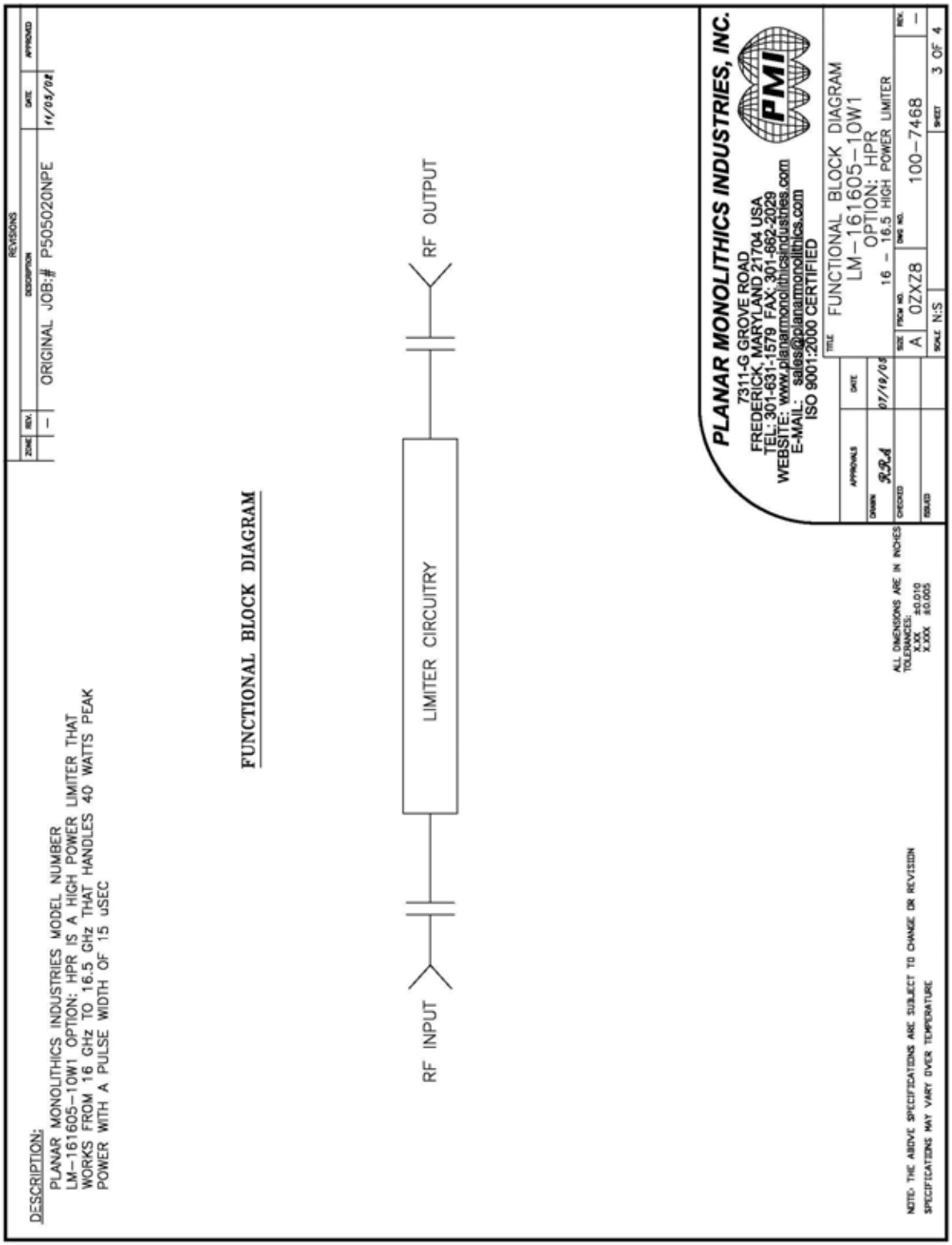
PRODUCT FEATURE



MECHANICAL OUTLINE



FUNCTIONAL DIAGRAM



TEST DATA AS PREPARED FOR THE CUSTOMER

LM-0518-10-1W-SHS-1-M-DTA

PLANAR MONOLITHICS INDUSTRIES
7311G GROVE ROAD, FREDERICK, MD21704
TEL: 301-631-1579 FAX: 301-662-4938
WEBSITE: WWW.PLANARMONOLITICS.COM
EMAIL: SALES@PLANARMONOLITICS.COM
ISO 9001:2000 CERTIFIED

SUMMARY TEST DATA ON LIMITER

CUSTOMER: AETHERCOMM INC.
MODEL NO: LM-161605-10W-1
OPTION NO: HPR
SERIAL NO: PM506163

JOB NO: P505020NPE
TESTED BY: B. Baker
TEMPERATURE: Room Temperature
DATE: 07/18/05

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	OPERATING FREQUENCY RANGE:	15.3 TO 17.3 GHz MINIMUM	15.3 TO 17.3 GHz	pass
2	INPUT RETURN LOSS: 16 TO 16.5 GHz @ 0 dBm INPUT	17 dB MINIMUM	19.3 dB	pass
3	OUTPUT RETURN LOSS: 16 TO 16.5 GHz @ 0 dBm INPUT	17 dB MINIMUM	22.1 dB	pass
4	INSERTION LOSS: 16 TO 16.5 GHz @ 0 dBm INPUT	1.5 dB MAXIMUM	1.4 dB	pass
5	LIMITING THRESHOLD:	+ 5 dBm TYPICAL	+ 5 dBm	pass
6	RF LEAKAGE: Pin < = 160 WATTS PULSE WIDTH < =15 µSEC DUTY CYCLE < = 25 %	+ 13 dBm MAXIMUM	NOT TESTED	
7	RECOVERY TIME:	1 µSEC MAXIMUM	NOT TESTED	

TESTED WITH: Hewlett Packard 8720C Network Analyzer

QA/QC APPROVAL: _____ DATED: 7/22/05

TEST DATA AS PREPARED FOR THE CUSTOMER

LM-0518-10-1W-SHS-1-M-DTA

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SUMMARY TEST DATA
ON
LIMITER

CUSTOMER: AETHERCOMM INC.
MODEL NO: LM-161605-10W-1
OPTION NO: HPR
SERIAL NO: PM506161

JOB NO: P505020NPE
TESTED BY: B. Baker
TEMPERATURE: Room Temperature
DATE: 07/18/05

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	OPERATING FREQUENCY RANGE:	15.3 TO 17.3 GHz MINIMUM	15.3 TO 17.3 GHz	pass
2	INPUT RETURN LOSS: 16 TO 16.5 GHz @ 0 dBm INPUT	17 dB MINIMUM	25.6 dB	pass
3	OUTPUT RETURN LOSS: 16 TO 16.5 GHz @ 0 dBm INPUT	17 dB MINIMUM	29 dB	pass
4	INSERTION LOSS: 16 TO 16.5 GHz @ 0 dBm INPUT	1.5 dB MAXIMUM	1.5 dB	pass
5	LIMITING THRESHOLD:	+ 5 dBm TYPICAL	+ 5 dBm	pass
6	RF LEAKAGE: Pin < = 160 WATTS PULSE WIDTH < =15 µSEC DUTY CYCLE < = 25 %	+ 13 dBm MAXIMUM	NOT TESTED	-
7	RECOVERY TIME:	1 µSEC MAXIMUM	NOT TESTED	-

TESTED WITH: Hewlett Packard 8720C Network Analyzer

QA/QC APPROVAL: _____ DATED: 7/20/05

TEST DATA AS PREPARED FOR THE CUSTOMER

LM-0518-10-1W-SHS-1-M-DTA

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SUMMARY TEST DATA ON LIMITER

CUSTOMER: AETHERCOMM INC.
MODEL NO: LM-161605-10W-1
OPTION NO: HPR
SERIAL NO: PM506162

JOB NO: P505020NPE
TESTED BY: B. Baker E
TEMPERATURE: Room Temperature #28
DATE: 07/18/05

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	OPERATING FREQUENCY RANGE:	15.3 TO 17.3 GHz MINIMUM	15.3 TO 17.3 GHz	pass
2	INPUT RETURN LOSS: 16 TO 16.5 GHz @ 0 dBm INPUT	17 dB MINIMUM	32 dB	pass
3	OUTPUT RETURN LOSS: 16 TO 16.5 GHz @ 0 dBm INPUT	17 dB MINIMUM	25 dB	pass
4	INSERTION LOSS: 16 TO 16.5 GHz @ 0 dBm INPUT	1.5 dB MAXIMUM	1.5 dB	pass
5	LIMITING THRESHOLD:	+ 5 dBm TYPICAL	+ 5 dBm	pass
6	RF LEAKAGE: Pin < = 160 WATTS PULSE WIDTH < =15 µSEC DUTY CYCLE < = 25 %	+ 13 dBm MAXIMUM	NOT TESTED	
7	RECOVERY TIME:	1 µSEC MAXIMUM	NOT TESTED	

TESTED WITH: Hewlett Packard 8720C Network Analyzer

QA/QC APPROVAL: _____ DATED: 7/22/05