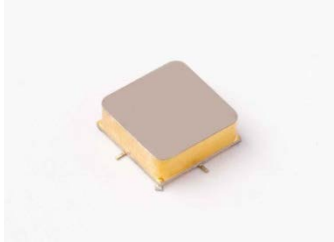


Standard Microwave Amplifier

Frequency Range: 500 MHz to 6000 MHz



Features

- Broadband Operation: 500 MHz to 6000 MHz
- High Output Power: +20 dBm
- Low Noise Figure: +3.5 dB
- Hermetic Package

Model TN9560 is a broadband amplifier covering 500 MHz to 6000 MHz. This higher power design utilizes a hermetically sealed package for superior environmental protection. This standard design may also be ordered in a MIL-STD-883 screened version (Model #SN9560) All specification ratings are based on measurements in a 50 Ω (ohm) system with a DC supply of 15 volts and a voltage tolerance of +/- 2%.

Technical Specifications

Parameter	Unit	Typical	Min/Max
Frequency Range	MHz	500 - 6000 MHz	500 - 6000 MHz
Gain	dB	19	17 (Min)
Noise Figure*	dB	3.5	4.0 (Max)
Output Power @ 1 dB Compression*	dBm	20	18 (Min)
Output 3 rd Order Intercept	dBm	30	-
Output 2 nd Order Intercept	dBm	45	-
Reverse Isolation	dB	35	-
Input VSWR	---	1.5:1	2.0:1 (Max)
Output VSWR	---	1.5:1	2.0:1 (Max)
Supply Voltage	volts	+15	+15
Supply Current	mA	140	155 (Max)

Absolute Maximum Ratings

Maximum (No Damage) Ratings	
Storage Temperature	-62°C to +125°C
Operating Temperature	-55°C to +85°C
DC Voltage @ 25°C	+17 volts
Input Drive @ 25°C (CW)	+20 dBm

Typical values are measured at 25°C, but not guaranteed.

* Noise Figure will be 1 dB greater at 6000 MHz.

* Output Power will be 1 dB less at 6000 MHz.

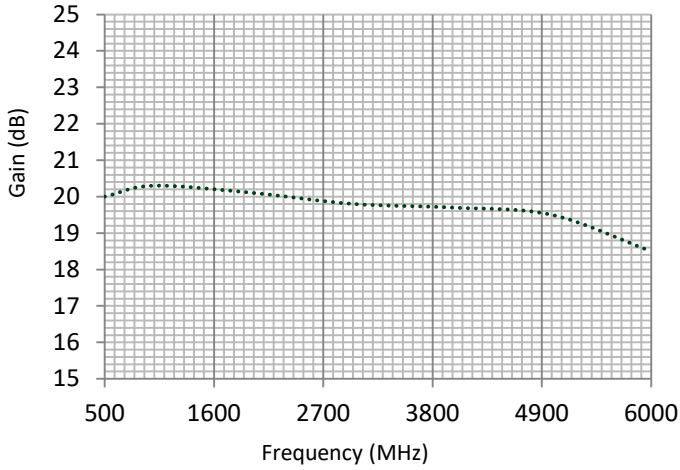
Mechanical & Electrical

Parameter	Specification
Specification Temperatures (Min/Max)	-55°C to +85°C
Package Size	TN9560: 0.450" Square Surface-mount
Package Drawing	SM3 Package (SMA Connectorized Version HF1)
RF Connectors	BX9560 (SMA)

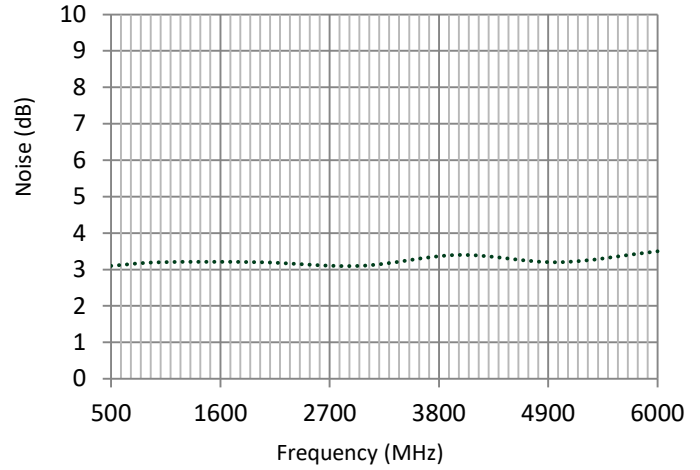


Typical Performance Graphs

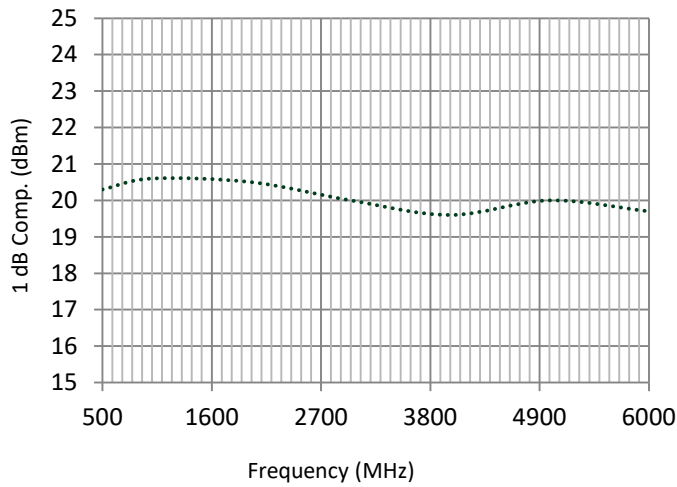
Gain (dB)



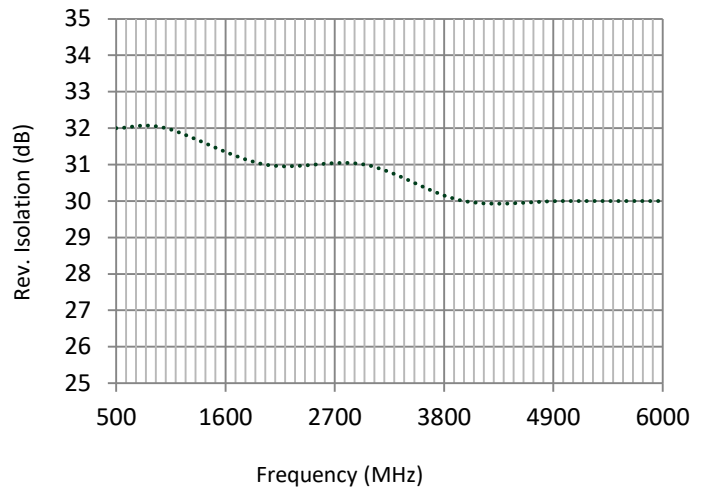
Noise Figure (dB)



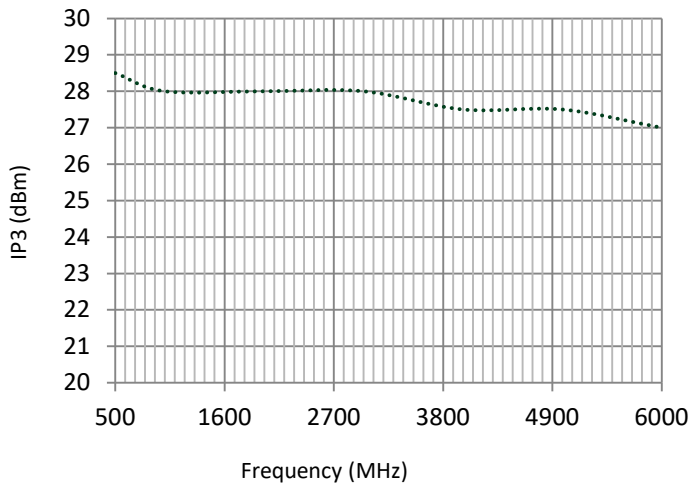
1 dB Compression (dBm)



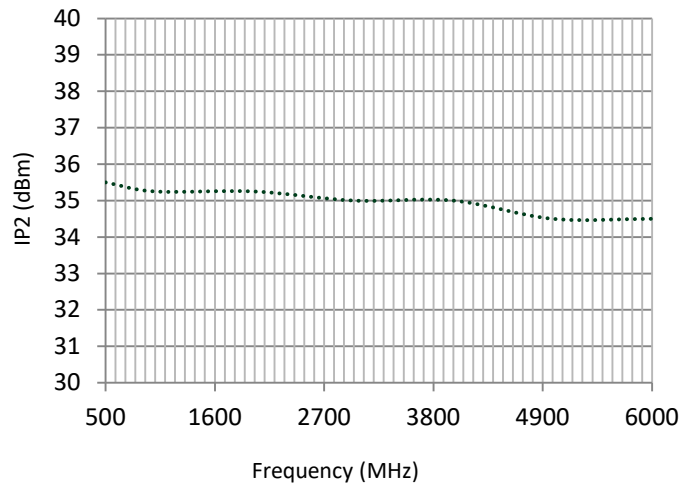
Reverse Isolation (dB)



3rd Order Intercept (dBm)

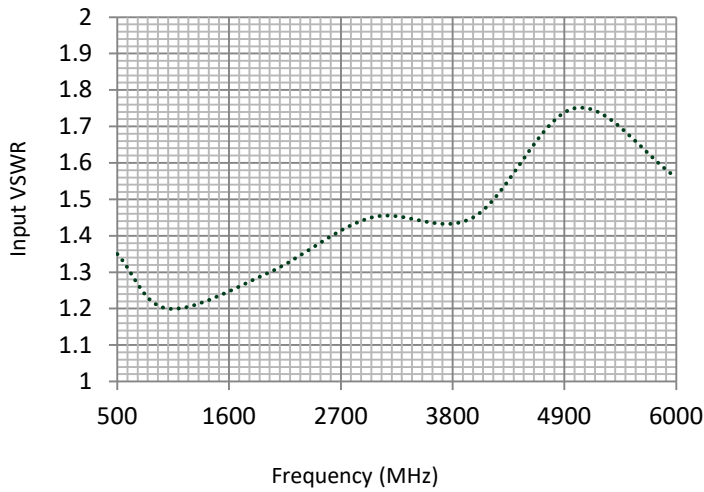


2nd Order Intercept (dBm)

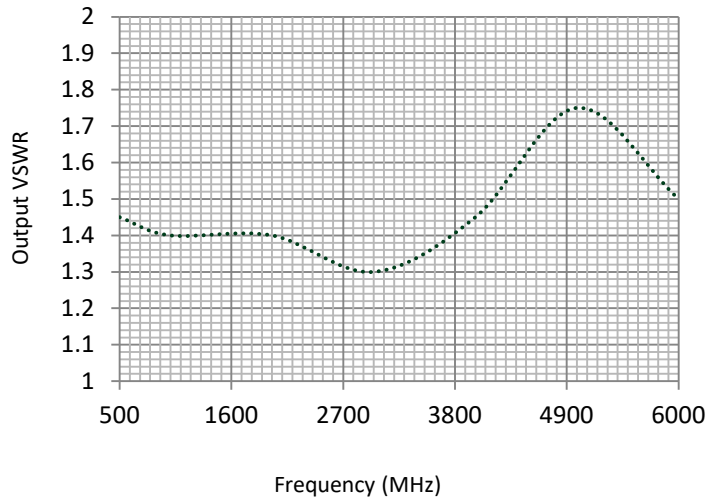


Typical Performance Graphs

Input VSWR



Output VSWR

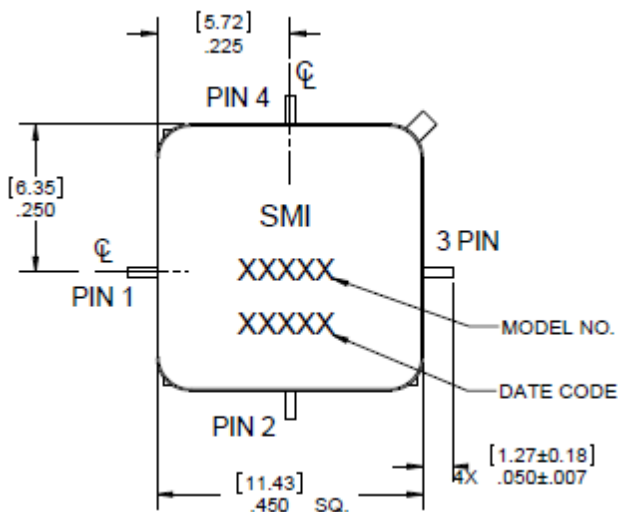


Instructions

Grounding Instructions	Care should be taken to effectively ground each unit.
Revisions	API reserves the right to make revisions to both product and/or the information contained within their datasheets without advanced notice.
Min./Max. Values	Specifications are guaranteed when tested in a 50 Ω (ohm) system.
Typical performance graphs and values are measured at 25°C, but not guaranteed.	

Outline Drawing

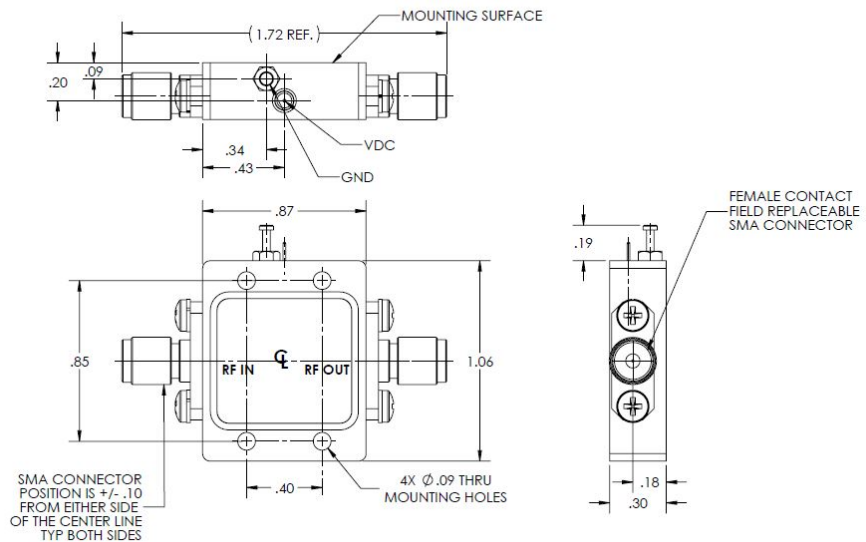
(For reference only)



TN9560

NOTES:

- HOUSING & SEAL COVER ALUMINUM, COVER IS LASER WELDED TO FORM A HERMITIC SEAL. HOUSING: IS NICKEL PLATED PER AMS-C-26074 CLASS 3, GRADE B. WELD COVER: CHEMICAL FILM MIL-DTL-5541, TYPE II CLASS 3

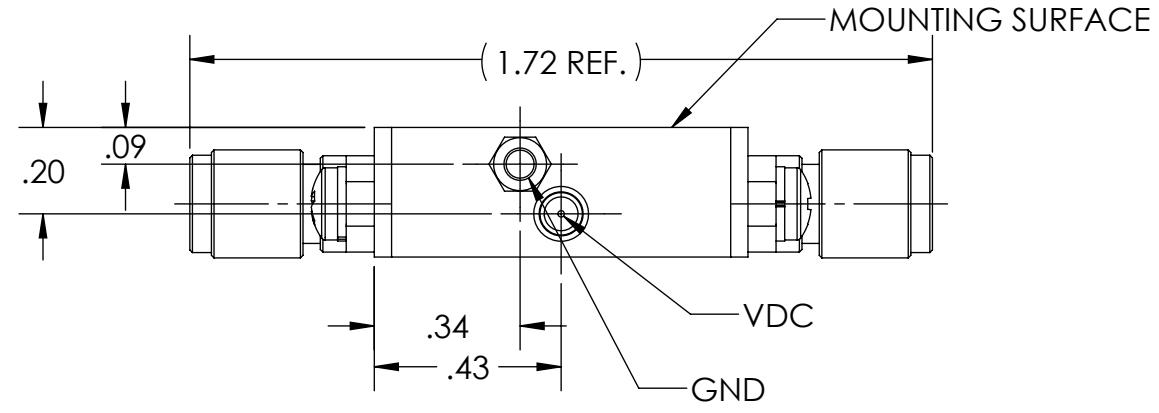
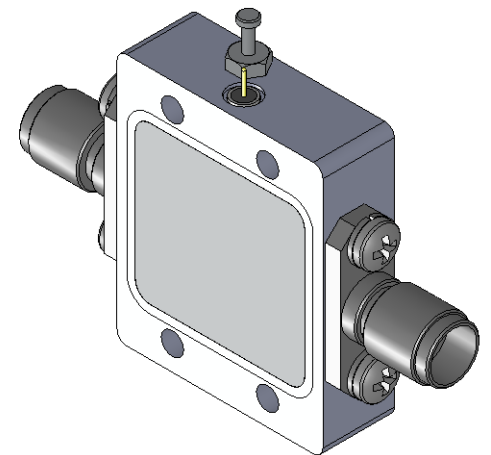


BX9560

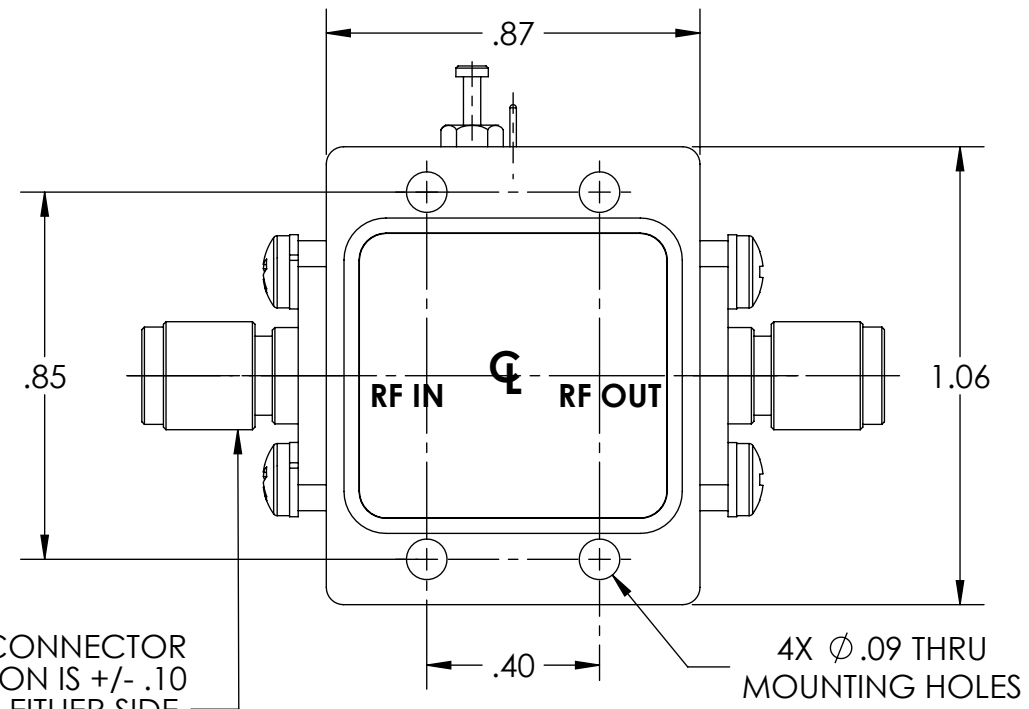
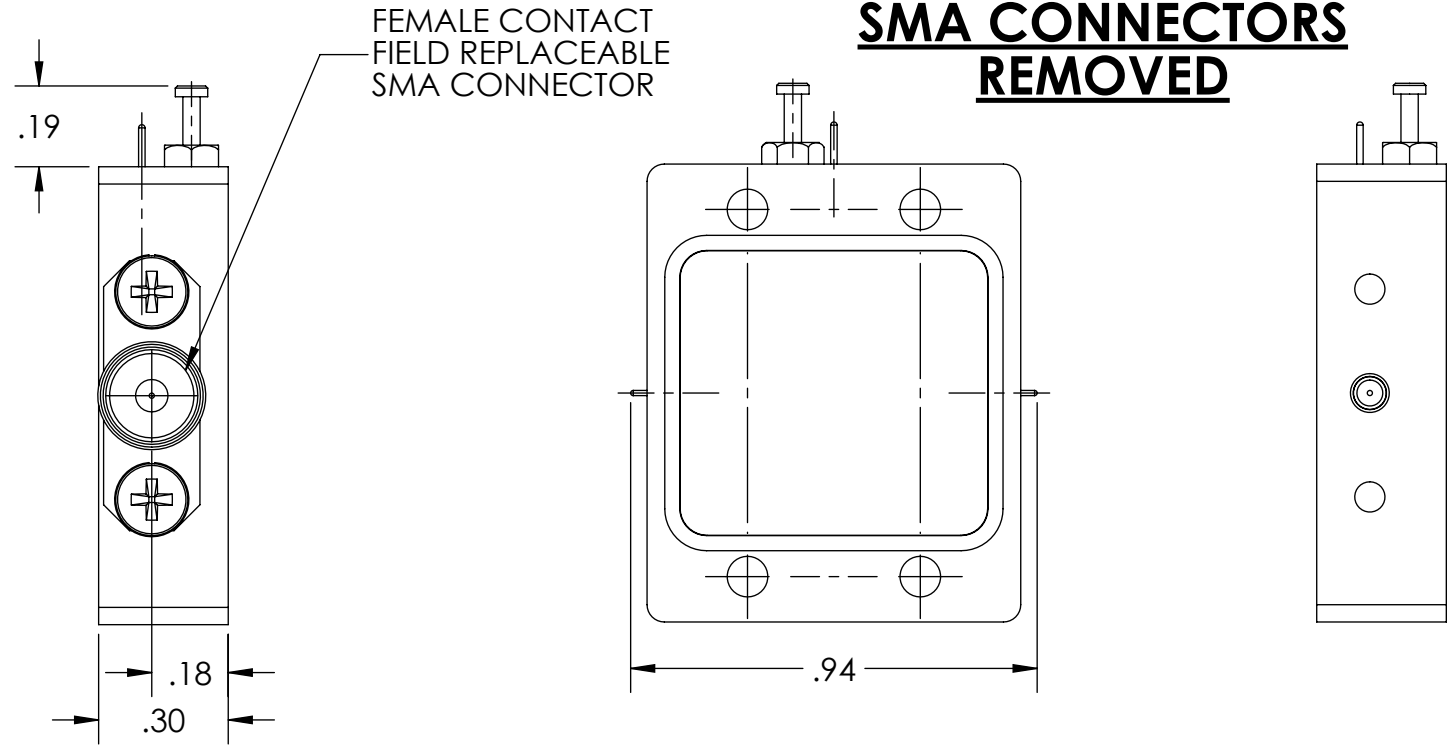
NOTES:

- 1. HOUSING & SEAL COVER ALUMINUM, COVER IS LASER WELDED TO FORM A HERMITIC SEAL.
HOUSING: IS NICKEL PLATED PER AMS-C-26074 CLASS 3, GRADE B,
WELD COVER: CHEMICAL FILM MIL-DTL-5541, TYPE II CLASS 3

REVISIONS				
ECN	REV.	DESCRIPTION	CHNG/DATE	APPVD/DATE
XXXXX	-	RELEASE	2016-08-30	

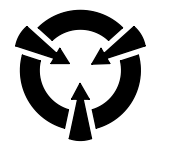


SMA CONNECTORS REMOVED



SMA CONNECTOR POSITION IS +/- .10 FROM EITHER SIDE OF THE CENTER LINE TYP BOTH SIDES

SEE SEPARATE PARTS LIST IN ELECTRONIC STORAGE



CAUTION

THIS ASSEMBLY CONTAINS PARTS SENSITIVE TO DAMAGE BY ELECTROSTATIC DISCHARGE (ESD). USE ESD PRECAUTIONARY PROCEDURES WHEN TOUCHING, REMOVING OR INSERTING

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UNLESS OTHERWISE SPECIFIED		3rd ANGLE PROJECTION	
* INTERPRET DRAWING IAW ASME Y14.100-2004		ANSI	
* DIMENSIONING AND TOLERANCING IAW ASME Y14.5-1994		DRAWN	DATE
* PARENTHEICAL INFORMATION FOR REFERENCE ONLY		WAR	2013-03-05
* DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		CHECKED	
* DIMENSIONS ARE IN INCHES		ENGRG	
* TOLERANCES ARE: ANGLES ±1.0°		HP	2013-03-05
63/2 PLACE DECIMAL ±.02		MFG	
3 PLACE DECIMAL ±.005		QA	
* REMOVE ALL BURRS AND SHARP EDGES .010 RAD MAX.			
* SURFACE FINISH			
* CONCENTRICITY MACHINED DIA: .002 FIM			
* MACHINED TOOL MISMATCH: .002 MAX.			
DO NOT SCALE DRAWING			

SPECTRUM MICROWAVE, INC			
2707 Black Lake Place			
Philadelphia, PA 19154-1008 (USA)			
TITLE			
OUTLINE, HF1			
SIZE	CAGE CODE	DWG NO.	REV
B	60979	088-00370	-
SCALE:	SHEET		
2.25:1	1 OF 1		