

Model

FPP1-103-S

8.200 – 12.400 GHz
Single Linear Wide Band Prime Focus Antenna Feed

mWAVE's FPP1-103-S operates at 8.200 – 12.400 GHz and is a single linear prime focus feed that is equipped with a SMA female input. This model is one of mWAVE's comprehensive line of scalar feeds which operate over full waveguide frequency bands.

These antenna feeds exhibit superior cross polarization discrimination and low VSWR. All feeds share identical mounting and focal point placement offering a truly interchangeable feed family system. This feature makes them excellent candidates for outfitting antenna test ranges, portable multi-band coverage communications systems and can be incorporated into and used for numerous other wideband or narrow band communications applications.



Configuration

Frequency Band	8.200 - 12.400 GHz
Type	Single Linear Wide Band Prime Focus Antenna Feed <i>(Dual and CP available)</i>
Feed Input	SMA female
Mounting	6-in (152-mm) dia. mounting surface (4) tapped #10-32 holes on a 5.25" DBC
f/d ratio reflector	Designed for a 0.375 f/d ratio reflector can be used with 0.35 - 0.42 f/d reflectors.
On-axis axial ratio	1.5 dB or less
On-axis cross pol	35 dB min.
Average VSWR	<1.5:1
Nominal gain	Approximately 8.5-10.5 dBic over the frequency band
Power	20W CW power handling (alternate higher power models available)
Environmental use	Sealed for outdoor use
Construction	Machined from high-strength 6061-T6 aluminum stock
Finish	Chemical Conversion per MIL-DTL-5541F, Type 2, Class 1A, Clear finish
Origin	Engineered and Manufactured in Windham, ME USA

Specification Notes:

1. Optional waveguide polarizers are available for scalar feed models for CP requirements.
2. Dual linear and dual circular versions of the Model FPP2-19-S antenna feed are also available.
3. Scalar feed models can be optimized for alternate f/d ratio reflectors.
4. An additional mounting plate can be added to suit customer specific mounting requirements.
5. Alternate coaxial input styles are available upon request.
6. Scalar feeds with waveguide inputs are capable of handling higher transmit power.

Notes: (1.) Referenced product specifications are subject to change without notice.
Designed, Engineered, and Manufactured in Windham, ME USA
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mWAVE source reference FPP Series Wide-Band-Antenna-Feeds_071129

Form: FPP1-103-S-220527_rev.0-DS



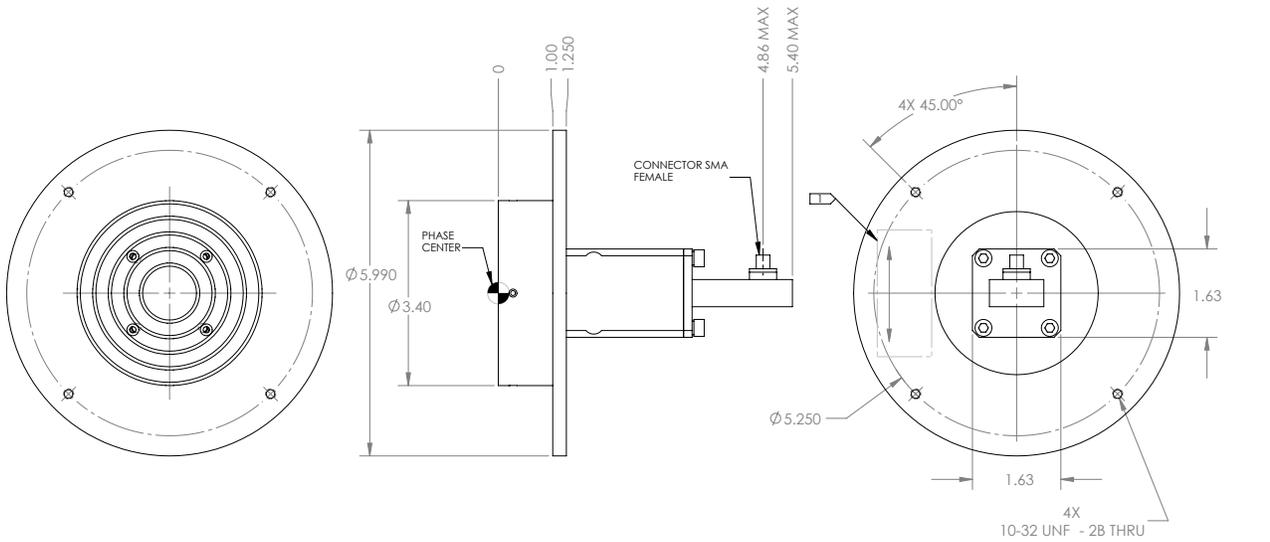
Model

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Single Linear Wide Band Prime Focus Antenna Feed

Mechanical



NOTES:

- 1. MODEL NO. & SERIAL NO. LABEL WITH POLARIZATION ARROWS.
- 2. ALUMINUM BODY IRIDIUM GOLD PER MIL-C-5541E, CLASS 1A

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES (MM) TOLERANCES: FRACTIONAL ± 1/16 ANGULAR: MATCH ± 5° BEND ± 1° XX ± .001 (5) XXX ± .002 (13) X.XX ± .005 (5) SURF. FINISH 125 MICRONS (5) INTERPRET DIMENSIONS: TOLERANCING PER ASME Y14.5M	DRAWN PP	DATE 11/18/05	mWAVE Industries, LLC Windham, ME USA
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF mWAVE INDUSTRIES, LLC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF mWAVE INDUSTRIES, LLC IS PROHIBITED.	CHECKED		TITLE: FPP1-103 SERIES OUTLINE
MATERIAL ALUMINUM	ENG APPR.		SIZE DWG. NO. B 100169
FINISH SEE NOTE	MFG APPR.		REV C
DO NOT SCALE DRAWING	QA:		SCALE: 1:1.5 CAGE CODE 32316 SHEET 1 OF 1

Dimensions for Scalar Feeds (FPP1-103-S shown)

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