TAOGLAS

Datasheet

Meteor

Part No:
FW.80.SMA.M

Description

Meteor 169MHz 0dBi Flexible Whip Monopole Omni-Directional Antenna

SMA Male connector

Features:

1/4 Wavelength
Robust but Flexible Inner Steel Whip
High Efficiency Outdoor Antenna
Advanced RF Design and Materials
RoHS Compliant
IP65 dust and water-resistant

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1. Introduction

The Meteor FW.80 is a 0dBi 169MHz ISM band 1/4 wavelength monopole flexible whip antenna with omnidirectional pattern optimized in the azimuth for wide coverage range in typical 169MHz applications such as Wireless M-Bus metering. It also finds its usage in remote asset monitoring applications, alarms, paging systems and private mobile radio services.

The Meteor, like all low frequency monopole antennas needs to be mounted to a metal plate to radiate.

For a waterproof integration to a metal box a waterproof panel mount SMA connector or cable assembly can be provided. TNC and N-type antenna versions are also available.

This whip is made up of a flexible inner steel core covered by TPU so extremely resistant to collisions and maintaining its original shape and RF performance.

Customized frequency and gain versions can be supplied.

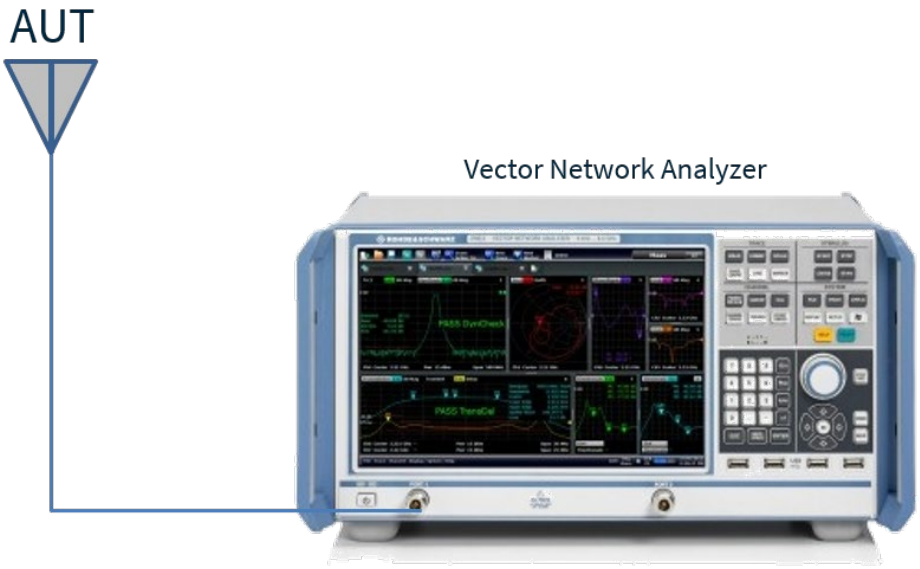
2. Specifications

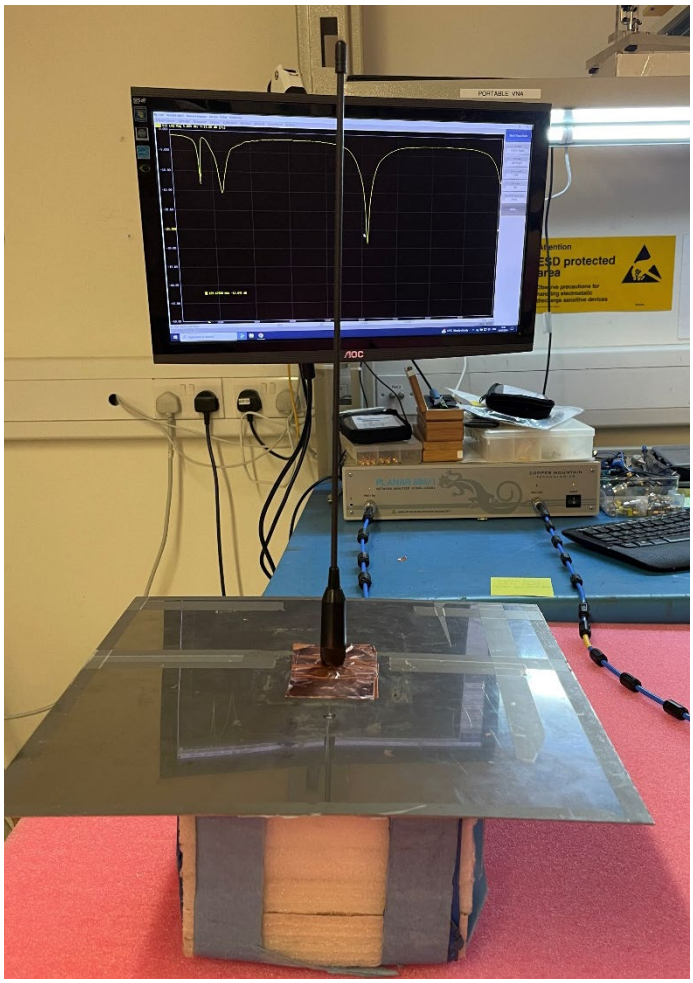
Electrical	
Frequency (MHz)	169
Peak Gain (dBi) *	0dBi
Average Gain (dBi) *	-3.9
Efficiency (%) *	40%
Impedance (Ω)	50
Polarization	Linear
Radiation Pattern	Omnidirectional
Input Power(W)	50
Tested Power(W)	10
Mechanical	
Dimensions (mm)	353 x Ø16
Base Diameter (mm)	Ø16
Whip Diameter (mm)	Ø4
Casing	ABS
Connector	SMA(M)
Environmental	
Temperature Range	-40°C to 80°C
Humidity	Non-Condensing 65°C 95% RH

* For low frequency antennas these parameters can only be estimated using RF formula calculation, simulation or rough field test comparisons with large benchmark antennas.

3. Antenna Characteristics

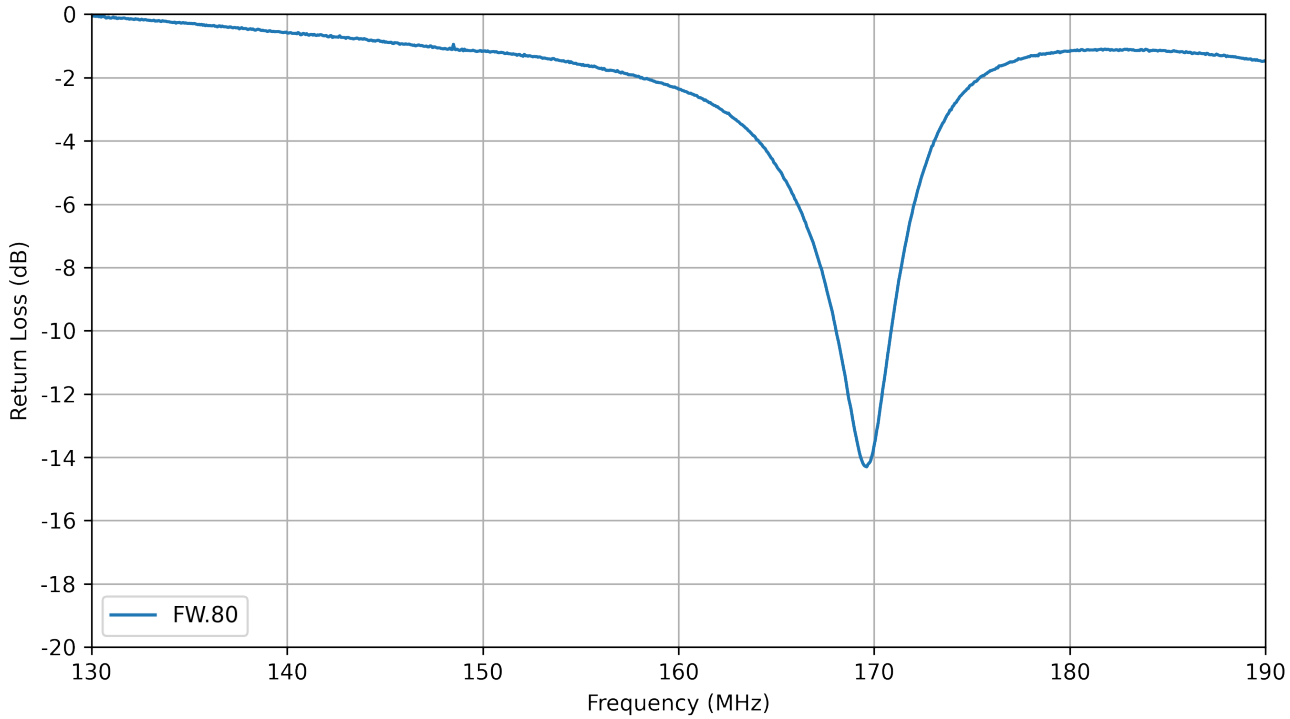
3.1 Test Setup



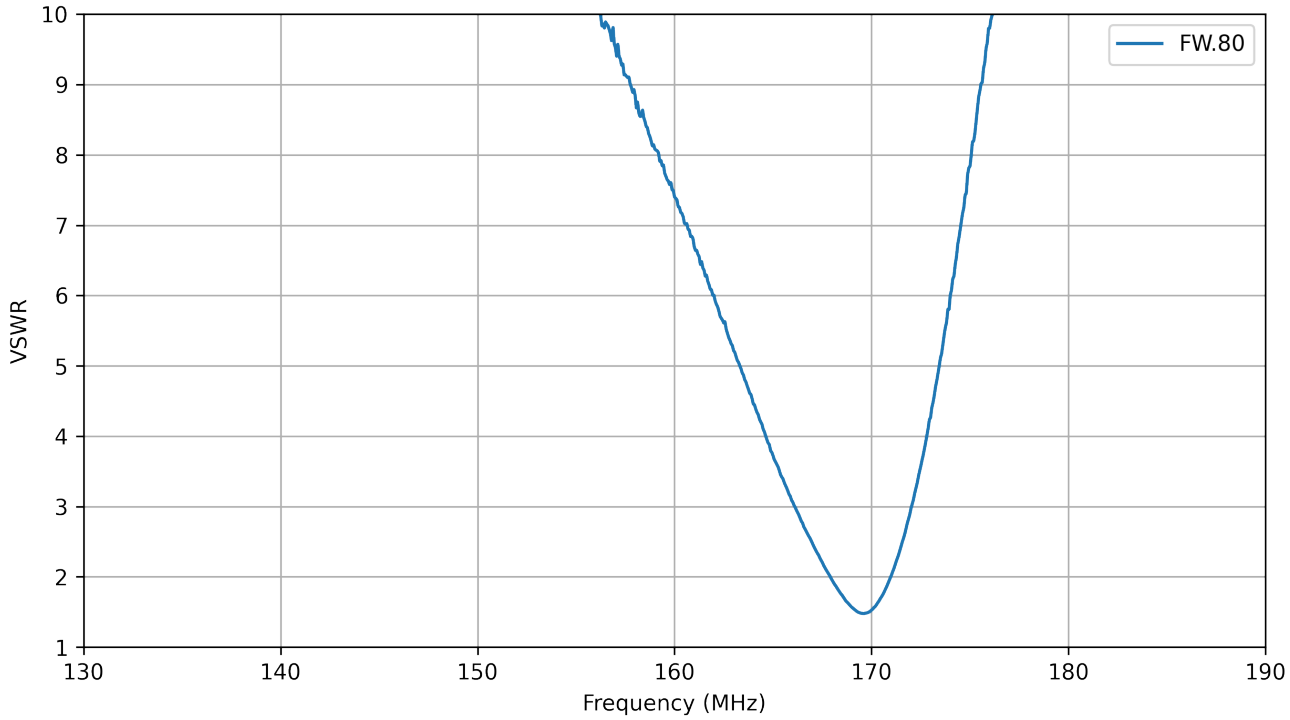


VNA Test Set-up – Tested on a 30x30cm Metal Ground Plane

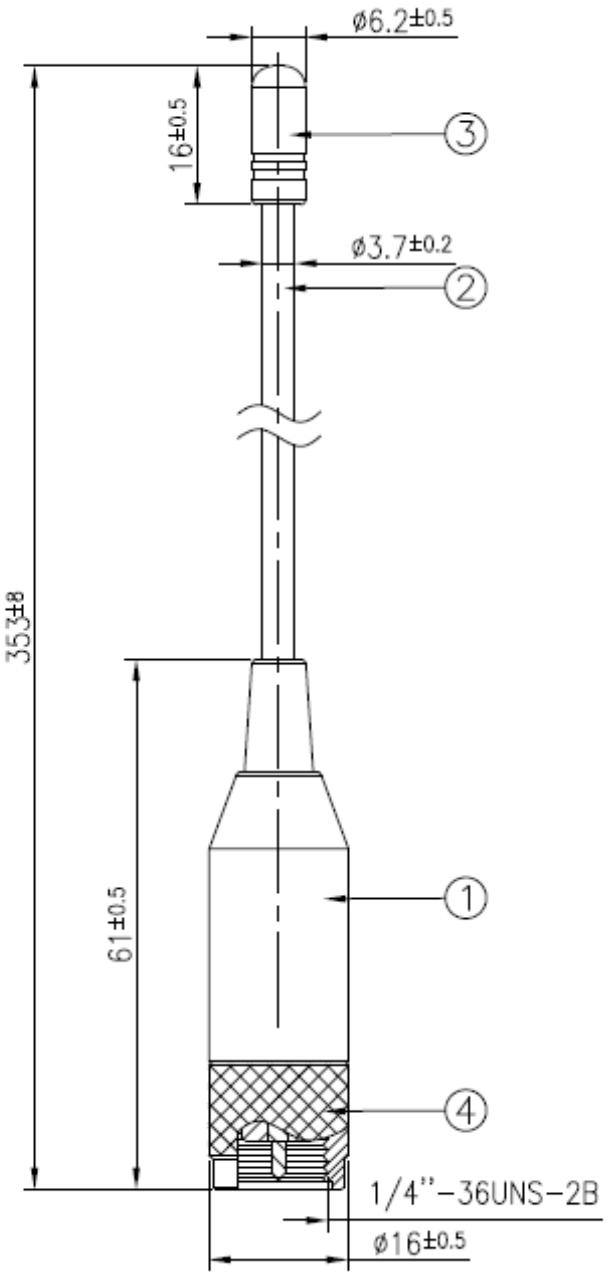
3.2 Return Loss



3.3 VSWR



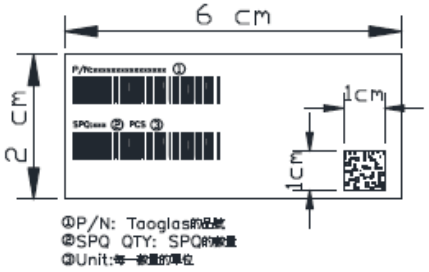
4. Mechanical Drawing

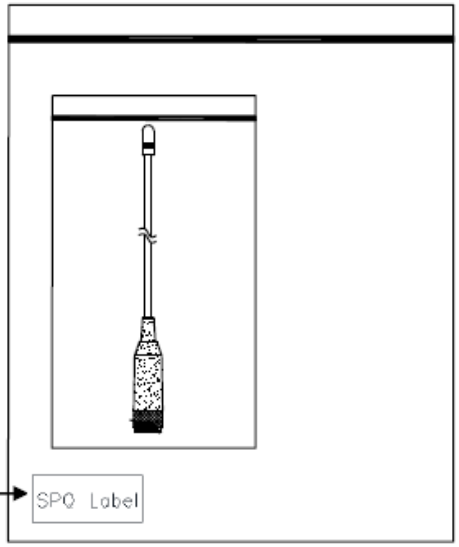


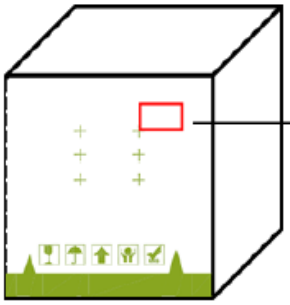
	Name	P/N	Material	Finish	QTY
1	Housing	000113A000002A	ABS	Black	1
2	Flexible Whip	000113A000002A	Steel+PE Jacket	Black	1
3	Cap	000713A000002A	POM	Black	1
4	Outer Body SMA(M)	000613A000002A	Brass	Black	1

5. Packaging

1 pcs/ PE Bag (50*400mm)
SPQ: 50 pcs/PE Bag (360*520mm)







200 pcs/Carton
(360*310*160mm)

Shipping Label

Changelog for the datasheet

SPE-12-8-033 - FW.80.SMA.M

Revision: I (Current Version)	
Date:	2025-03-24
Changes:	Updated max operation temperature to 80°
Changes Made by:	Conor McGrath

Previous Revisions

Revision: H	
Date:	2024-07-16
Changes:	Retest and full datasheet update
Changes Made by:	Gary West

Revision: G	
Date:	2019-08-16
Changes:	Updated to new format
Changes Made by:	Dan Cantwell

Revision: F	
Date:	2018-10-15
Changes:	Updated IP rating from IP67 to IP65
Changes Made by:	David Connolly

Revision: E	
Date:	2017-04-08
Changes:	Updated as per pcn -16-8-075
Changes Made by:	Andy Mahoney

Revision: D	
Date:	2016-02-12
Changes:	
Changes Made by:	SS

Revision: C	
Date:	2012-15-10
Changes:	
Changes Made by:	SS

Revision: B	
Date:	2012-26-07
Changes:	
Changes Made by:	SS

Revision: A (Original First Release)	
Date:	2012-04-02
Notes:	
Author:	SS

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