



TAOGLAS®



Datasheet

433MHz ISM Band Terminal Antenna

Part No:
TI.10.0111

Features:

- SMA(M) Plug Connector
- Low Profile and Robust Handling
- 48.2mm Antenna Dimensions
- IP65 Rated
- RoHS and REACH Compliant

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1. Introduction



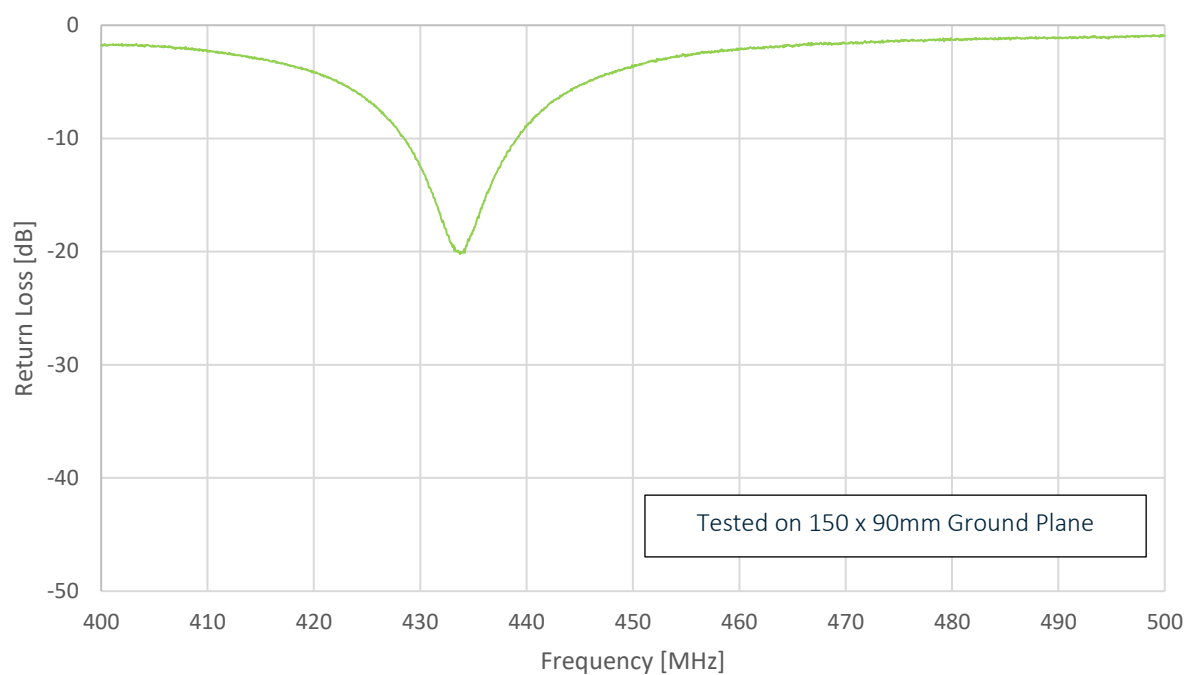
The TI.10 series are high performance 433MHz omni-directional antennas. The TI.10 terminal SMA plug mount antenna is ideal for mobile small form factor applications. At only 48.2mm in length Omni-directional with a peak gain 0dBi ensures constant reception and transmission. The antenna structure is designed for robust handling and the housing is made with TPE giving reliable performance in tough environments.

2. Specifications

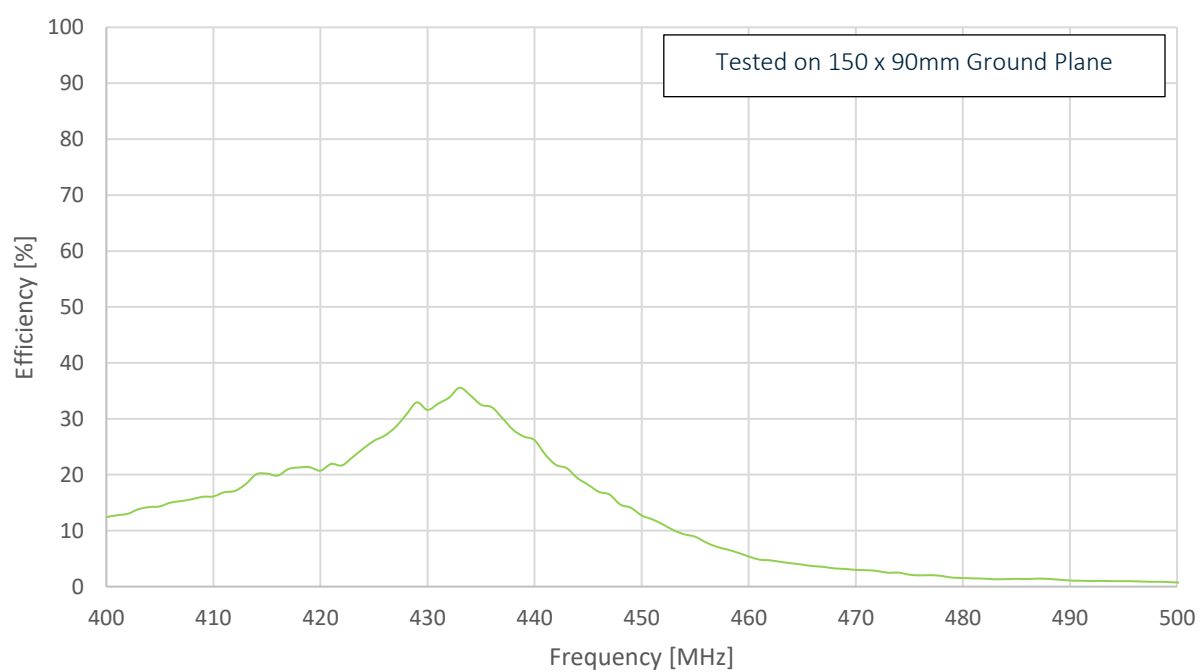
Electrical									
Band	Frequency (MHz)	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)	Radiation Pattern	Impedance	VSWR	Polarization	Power
ISM Band 433 MHz	433.05~434.79	36	-4.5	-1.4	Omni - Directional	50Ω	≤1.5:1	Linear	5W
*Tested on 150 x 90mm Ground Plane									
Mechanical									
Dimensions		48.2mm X Ø8mm							
Housing		TPE							
Connector		SMA(M) plug							
Weight		8.5g							
Environmental									
Operation Temperature		-40°C to + 85°C							
Storage Temperature		-40°C to + 105°C							
Relative Humidity		40% to 95%							

3. Antenna Characteristics

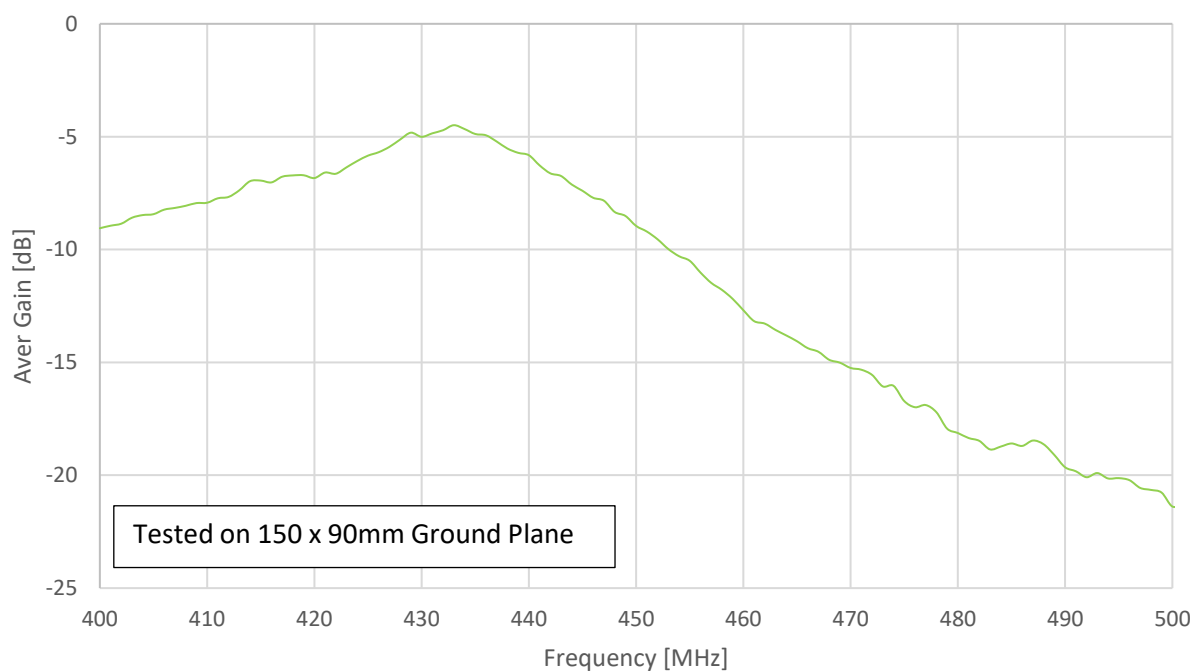
3.1 Return Loss



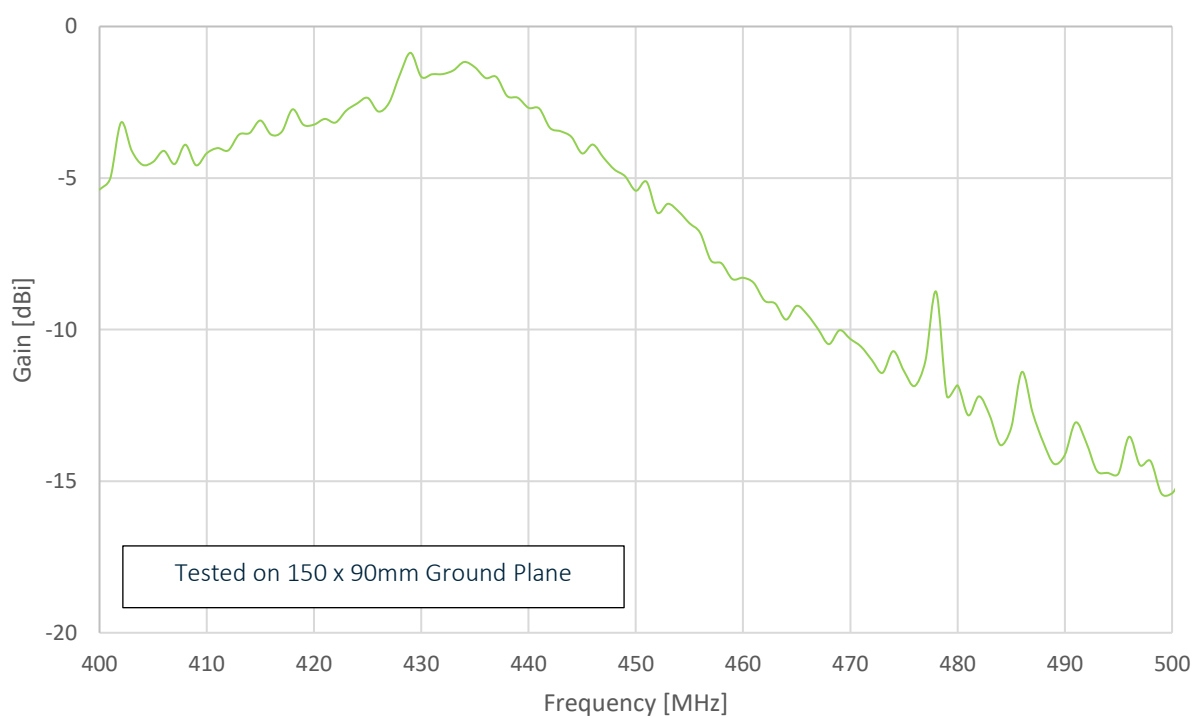
3.2 Efficiency



3.3 Average Gain

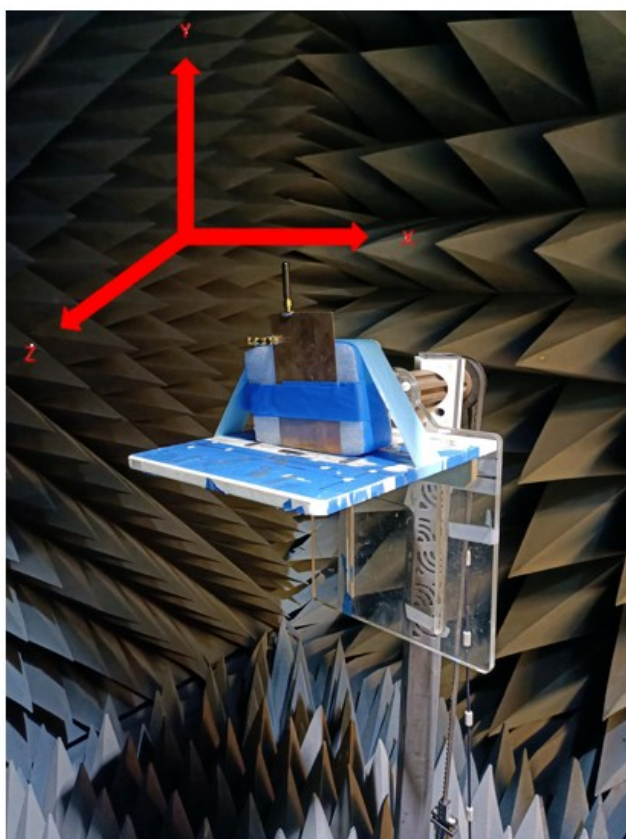


3.4 Peak Gain

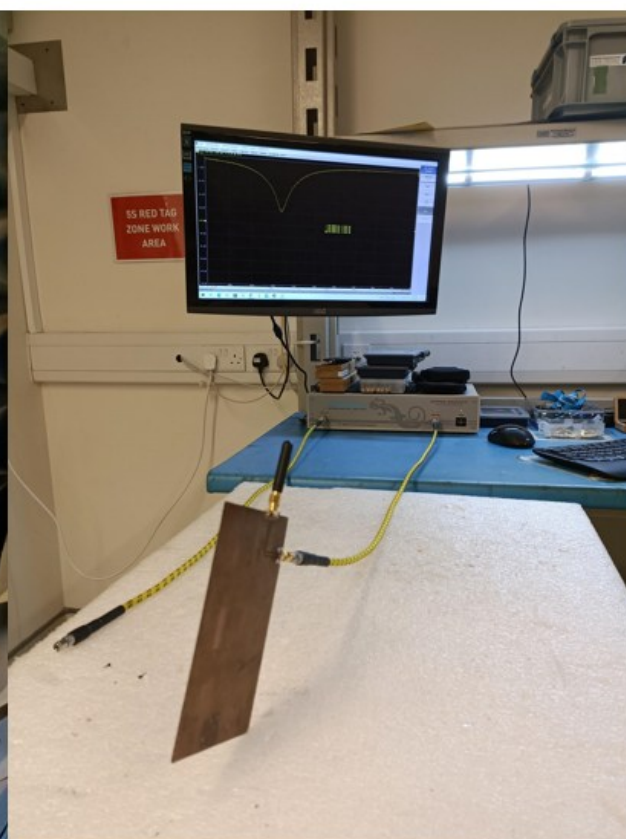


4. Radiation Patterns

4.1 Test Setup

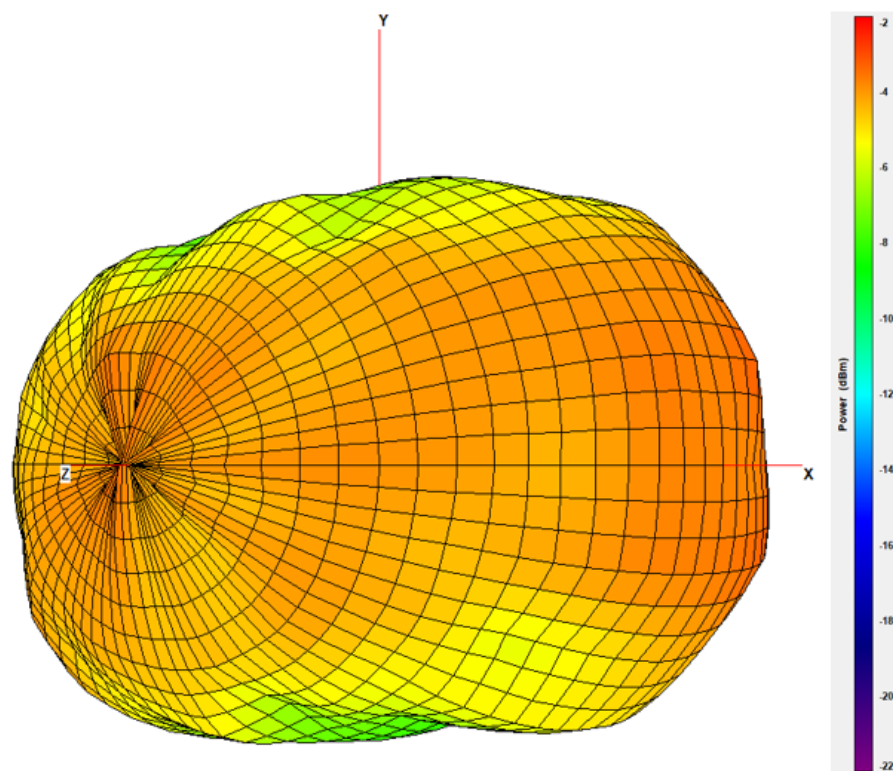


Chamber Setup



VNA Setup

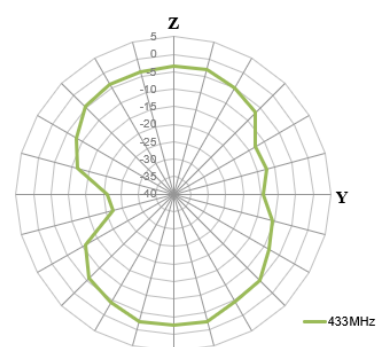
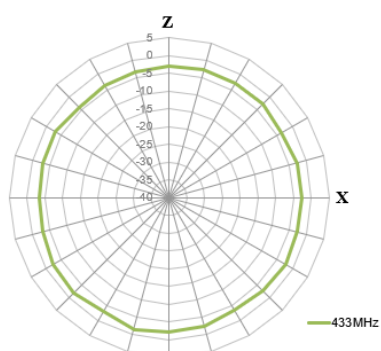
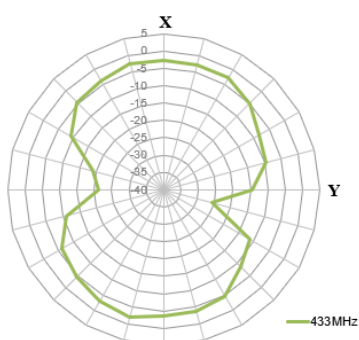
4.2 433MHz 3D and 2D Radiation Patterns



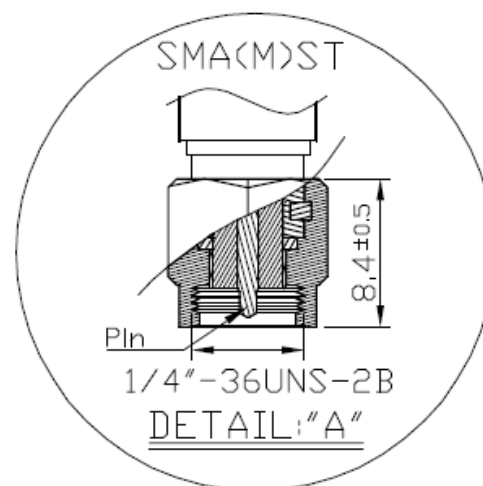
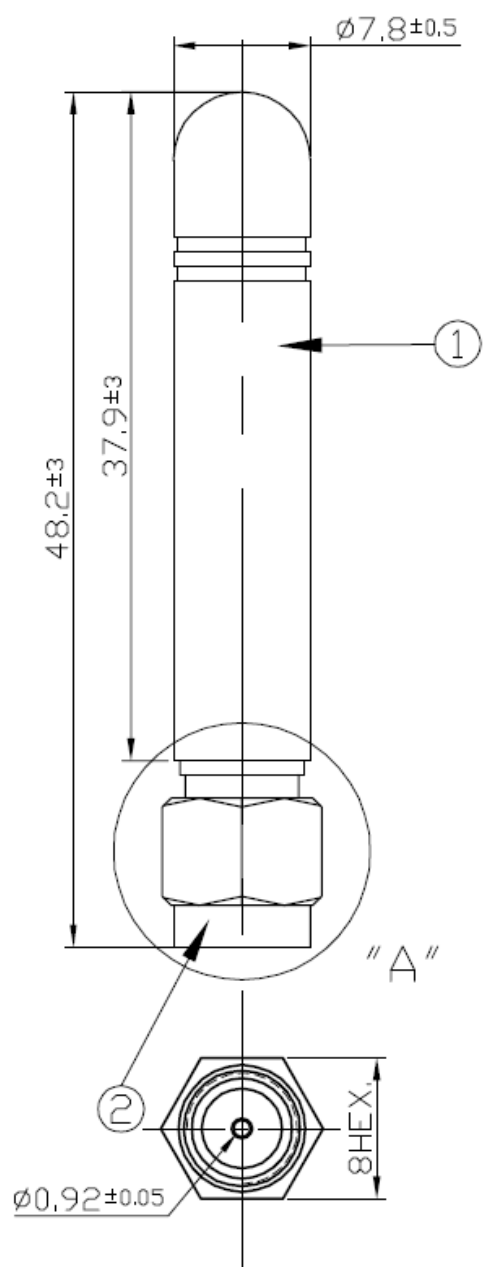
XY Plane

XZ Plane

YZ Plane



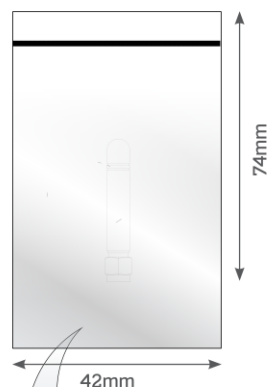
5. Mechanical Drawing (Units: mm)



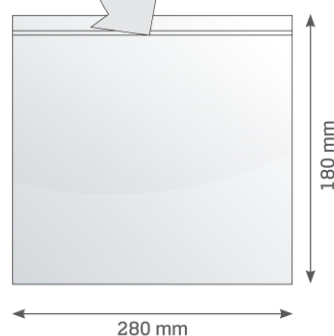
	Name	P/N	Material	Finish	QTY
①	Antenna Cover	000111K030002A	TPU	Black	1
②	SMA(M)ST	200211J000002A	Brass	Gold	1

6. Packaging

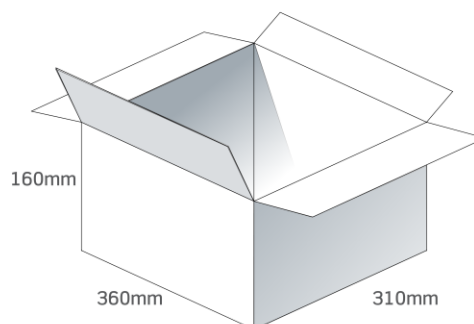
1 pcs TI.10.0111 per PE bag
PE Bag Dimensions - 74 x 42mm
Weight - 8g



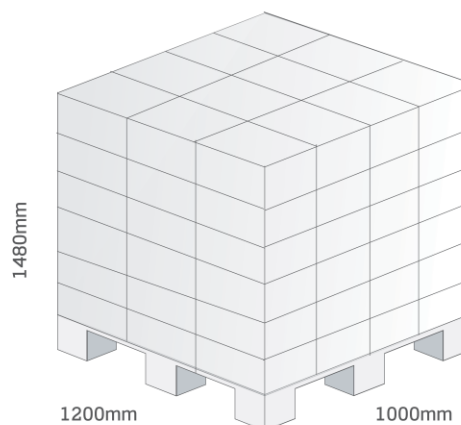
100 PE bags per large PE bags
100 pcs TI.10.0111 per large PE bags
Large PE bags Dimensions - 280 x 180mm
Weight - 810g



15 Large PE bags per carton
1500 pcs TI.10.0111 per carton
Carton Dimensions - 360 x 310 x 160mm
Weight - 12.5kg



Pallet Dimensions 1200*1000*1480mm
72 Cartons per Pallet
9 Cartons per layer
8 Layers



Changelog for the datasheet

SPE-13-8-035 – TI.10.0111

Revision: C (Current Version)	
Date:	2024-12-04
Changes:	Added test setup description
Changes Made by:	Gary West

Previous Revisions

Revision: B	
Date:	2022-01-20
Changes:	Full data & datasheet update
Changes Made by:	Gary West

Revision: A (Original First Release)	
Date:	2013-05-01
Notes:	
Author:	Technical Writer

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Previous Revisions (Continued)



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