
# DATASHEET

TAURI SZK-C-2W16 | Flexible Self-Adhesive Antenna | Tri-band WI-FI

## Features:

WI-FI 6 / 7 : 2400-2500; 4900-7125MHz

>4.8dBi Peak Gain, >75% Efficiency

Dimensions: 22.0 x 6.0 x 0.2 mm
Cable Length: 100mm, 0.81mm Ø
Connector: MHF2 (U.FL Compatible)
RoHs compliant

## Contents

# Introduction

TAURI (SZK-C-2W16) from Synzen is a cutting-edge, ultra-compact antenna specifically designed for Wi-Fi applications across the 2.4GHz, 5GHz, and 6GHz frequency bands. Engineered for seamless operation in Wi-Fi 6, Bluetooth, ZigBee, and other related wireless protocols, TAURI delivers exceptional performance in the latest connectivity standards, including C-V2X and DSRC technologies.

What sets TAURI apart is its innovative design. Crafted from high-quality flexible materials, this antenna boasts an incredibly slim form factor, measuring just 22 x 6 mm x 0.2mm. This makes it an ideal solution for integrating into devices where space is at a premium. Its double-sided adhesive backing allows for quick, hassle-free installation – simply peel and stick for secure mounting. TAURI minimizes space consumption, ensuring it fits seamlessly into even the tightest enclosures.

The TAURI antenna is designed to perform consistently in constrained environments, making it perfect for integration into devices like tablets, smart displays, IoT devices, and other compact electronics. Its compact size and high performance make it a perfect fit for modern devices requiring reliable connectivity.

Many wireless modules impose peak gain limits to ensure optimal performance. In real-world applications, an antenna's peak gain in free-space conditions can be reduced when integrated within a device. To address this, TAURI is designed with a slightly elevated peak gain, ensuring that even when placed inside a device, it maintains strong, reliable connectivity.

Synzen offers free in-depth testing and integration support to ensure TAURI meets the regulatory requirements for your device.

TAURI (SZK-C-2W16) is your go-to solution for cutting-edge wireless connectivity in small, confined spaces, without sacrificing performance.

# Mechanical Specifications

| Parameter | |
|---|---|
| Part Number | SZK-C-2W16 |
| Name | TAURI |
| Dimensions (mm) | 22.0 x 6.0 x 0.2 |
| Weight | <1.5g |
| Antenna Type | FPC + Cable |
| Cable Length (mm) | 100.0, 0.81 ø* |
| Connector | MHF2 (U. FL Compatible) * |
| Part Number with Cable and Connector | SZK-C-2W16-100-01 |
| Adhesive backing | 3M 468 |

*Alternate cable length and connectors available upon request

# Electrical / RF Specifications

| Band | Frequency Range (MHz) | Efficiency (%) | Peak Gain (dBi) | VSWR | Impedance |
|---|---|---|---|---|---|
| Wi-Fi 2GHz | 2400-2500 | >65 | 3.10 | 2.60:1 | |
| Wi-Fi 5GHz | 4900-5850 | >60 | 4.80 | 2.20:1 | 50 Ω |
| Wi-Fi 6GHz | 5925-7125 | >55 | 4.90 | 2.40:1 | |

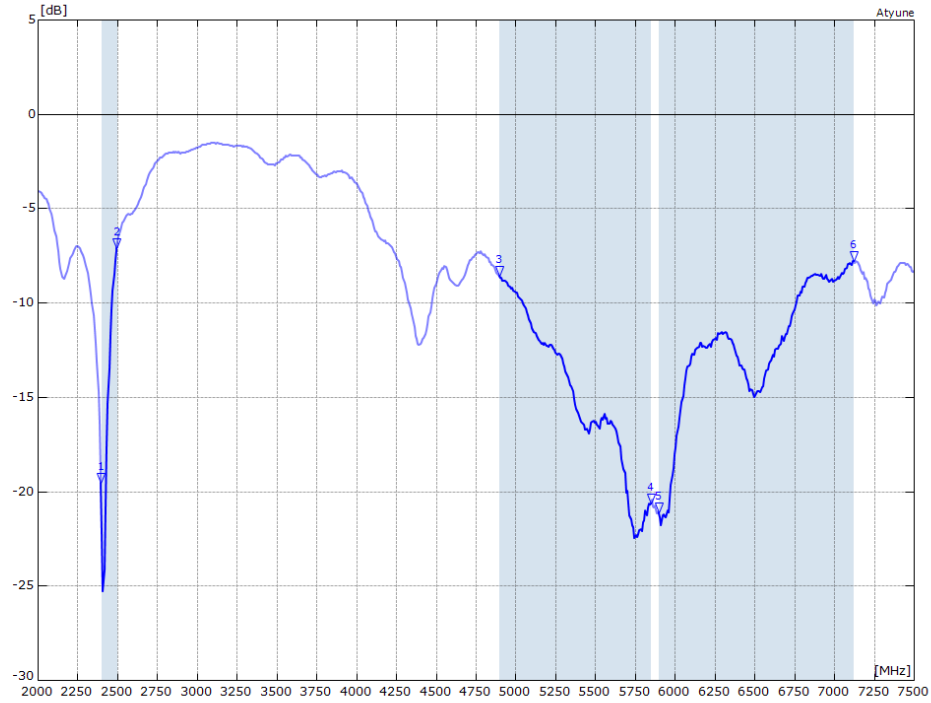
*Note: The antenna performance was measured on a 2mm thick ABS plastic sheet*

# Environmental

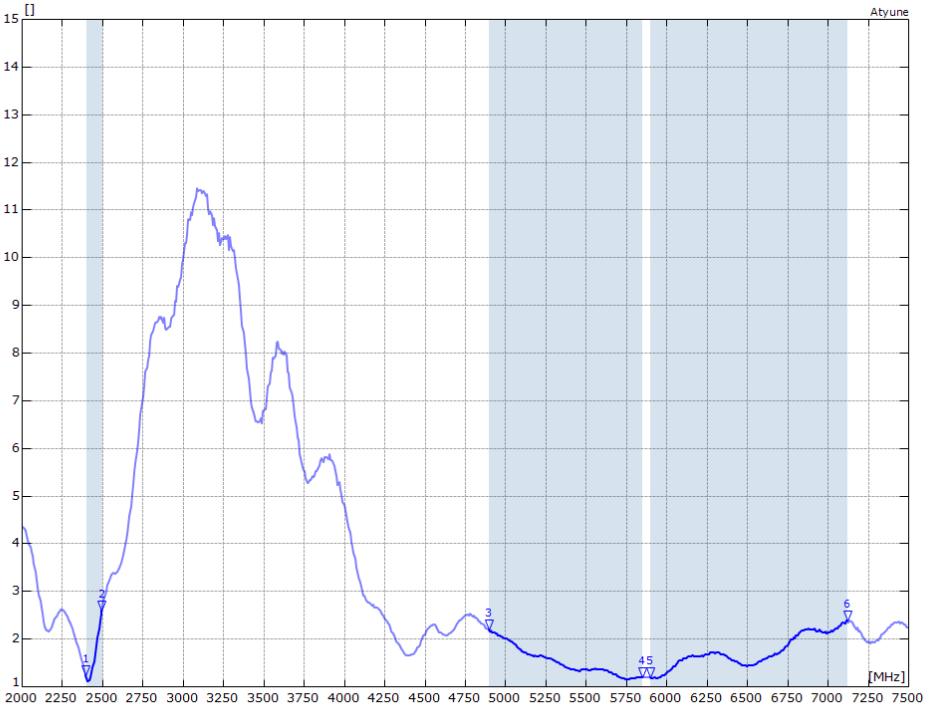
| Parameter | |
|---|---|
| Operational Temperature | -40 to +85 |
| Storage Temperature | -40 to +85 |
| Relative Humidity (Storage) | 65±20% RH |
| Moisture Sensitivity | 1 |
| RoHs and REACH compliant | Yes |

# RF Characteristics

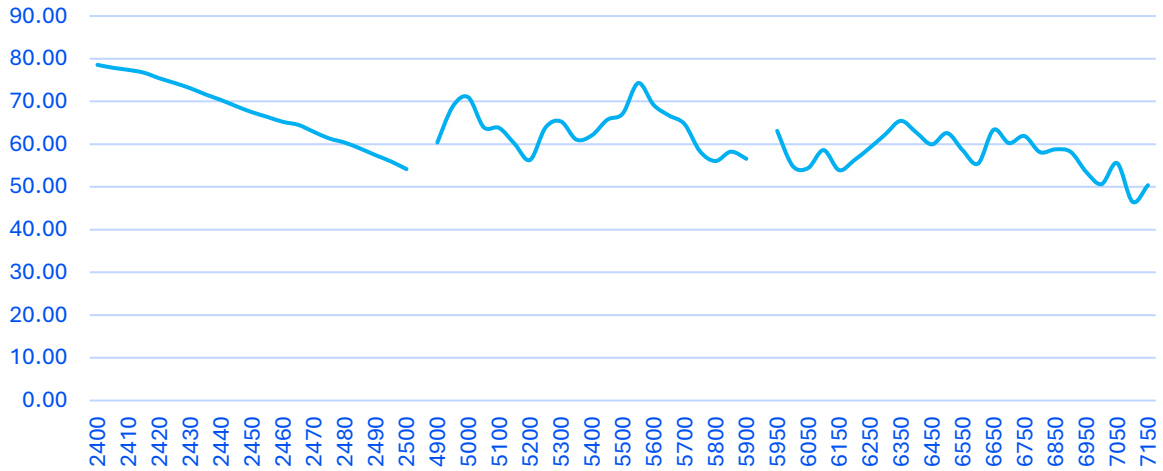
## Return loss



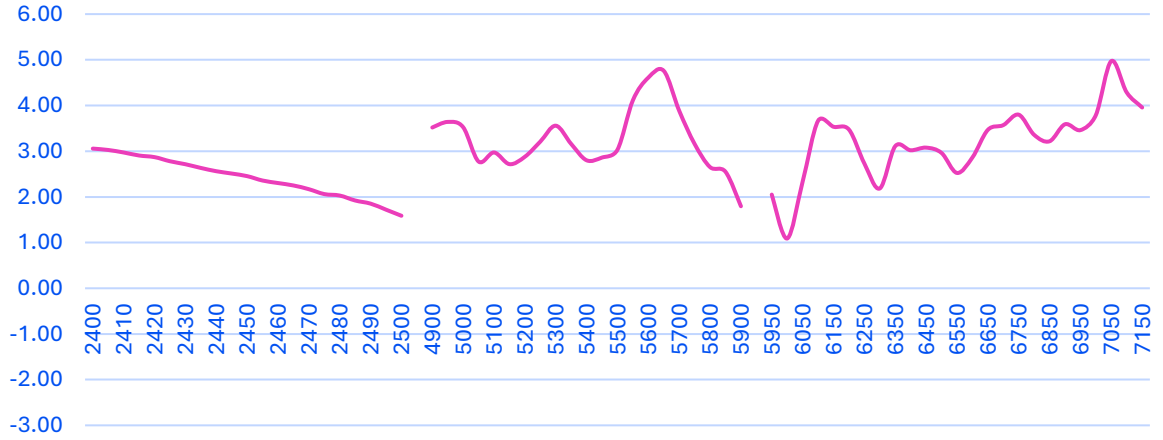

## VSWR



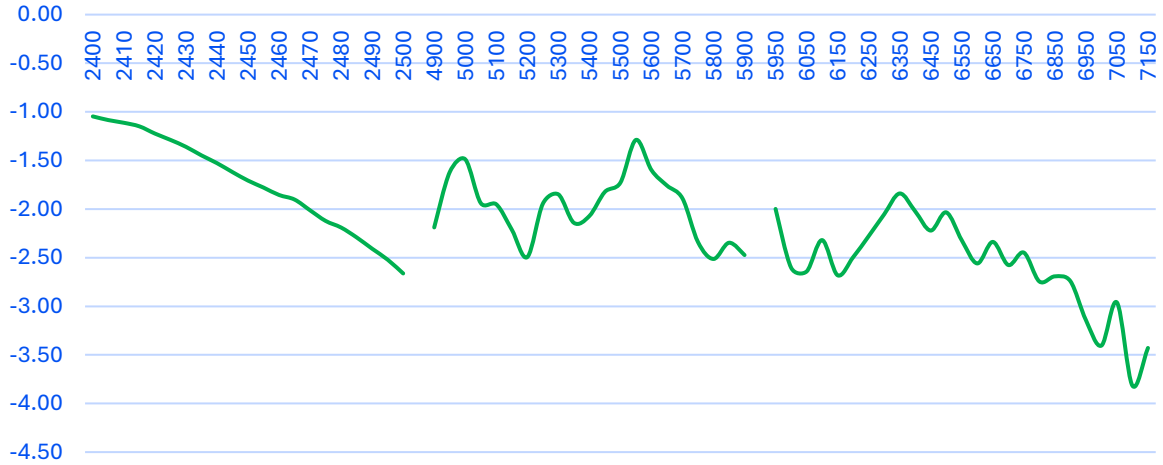
## Efficiency




## Peak Gain

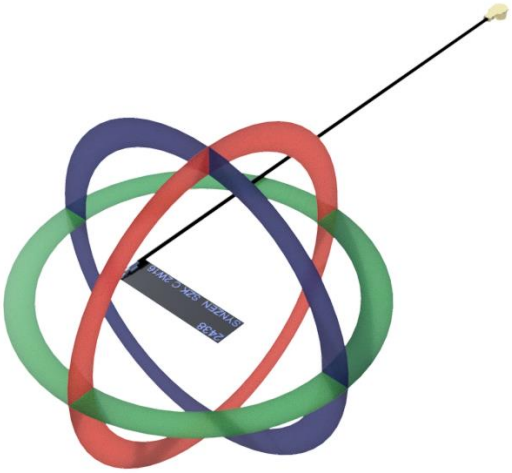


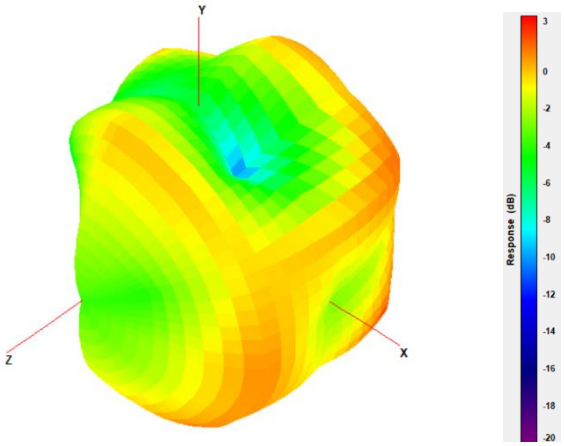

## Average Gain



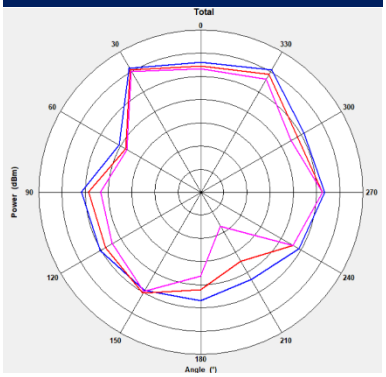
# RF Radiation Patterns

## RF Radiation Patterns at 2450MHz

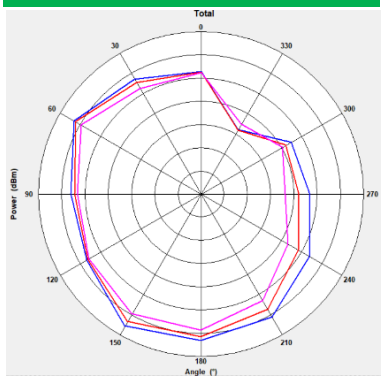




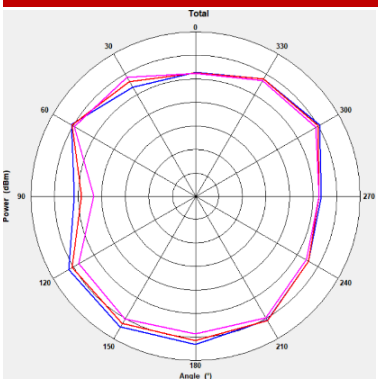

XY




XZ



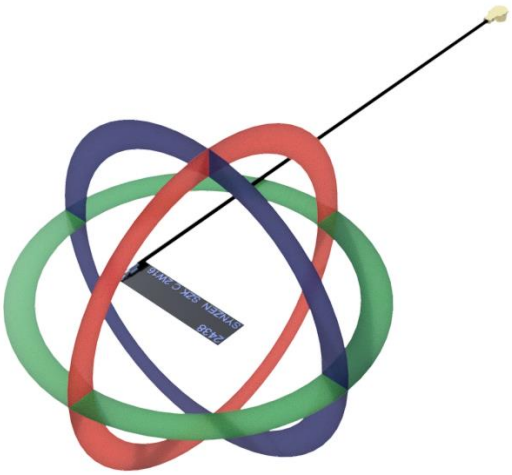

YZ

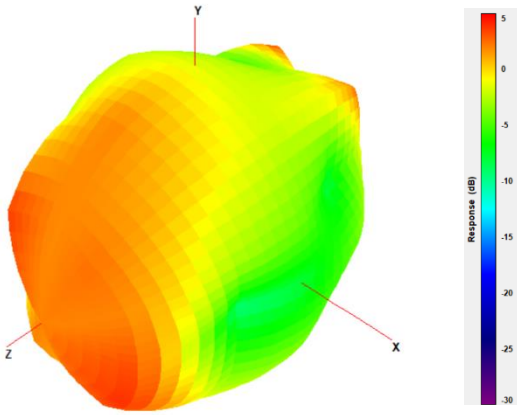



Max: 5
Min: -30
Scale: 5/div

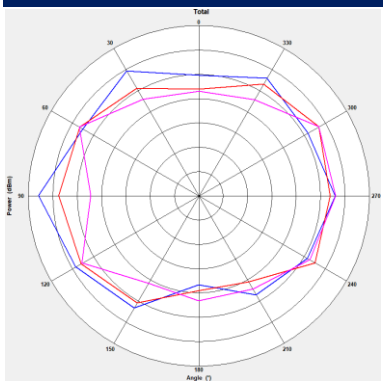
2400
2450
2500

# RF Radiation Patterns at 5500MHz

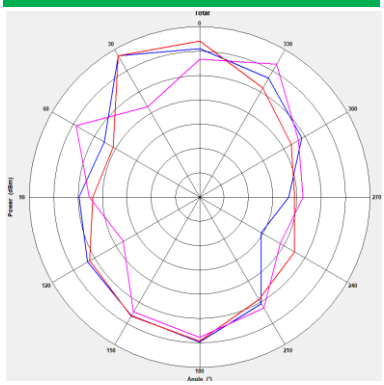




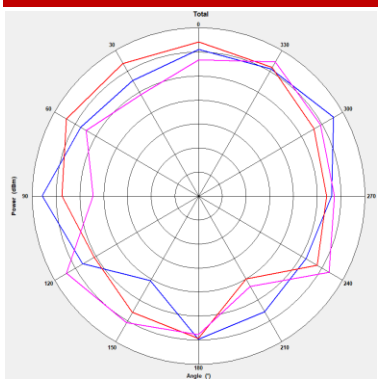

XY




XZ



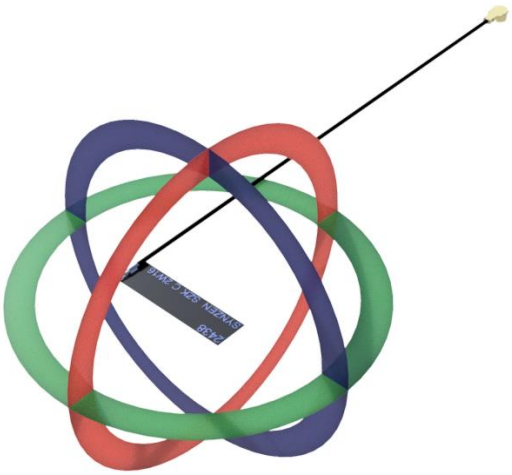

YZ

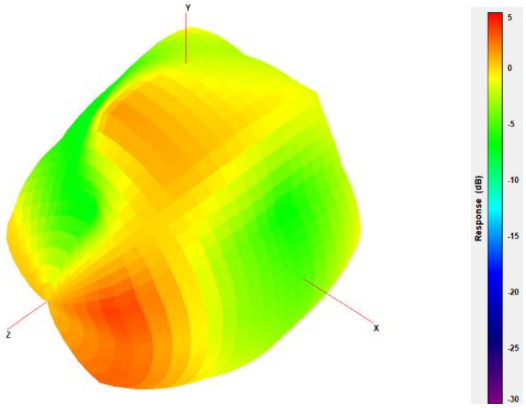


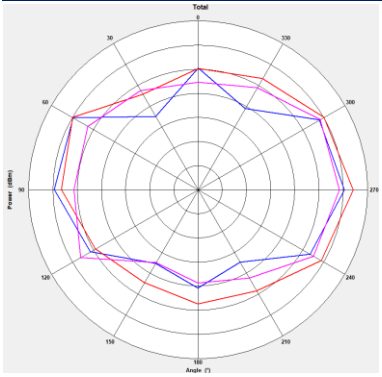
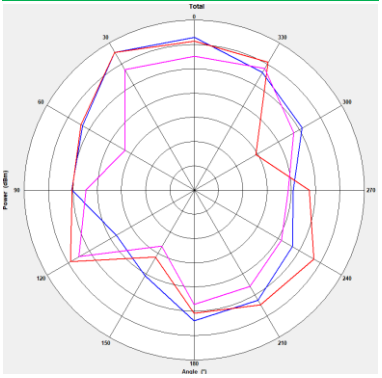
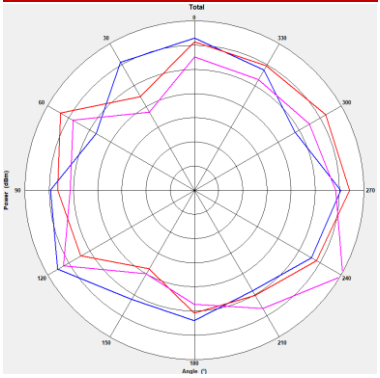

Max: 5
Min: -30
Scale: 5/div

5100
5500
5850

# RF Radiation Patterns at 6500MHz





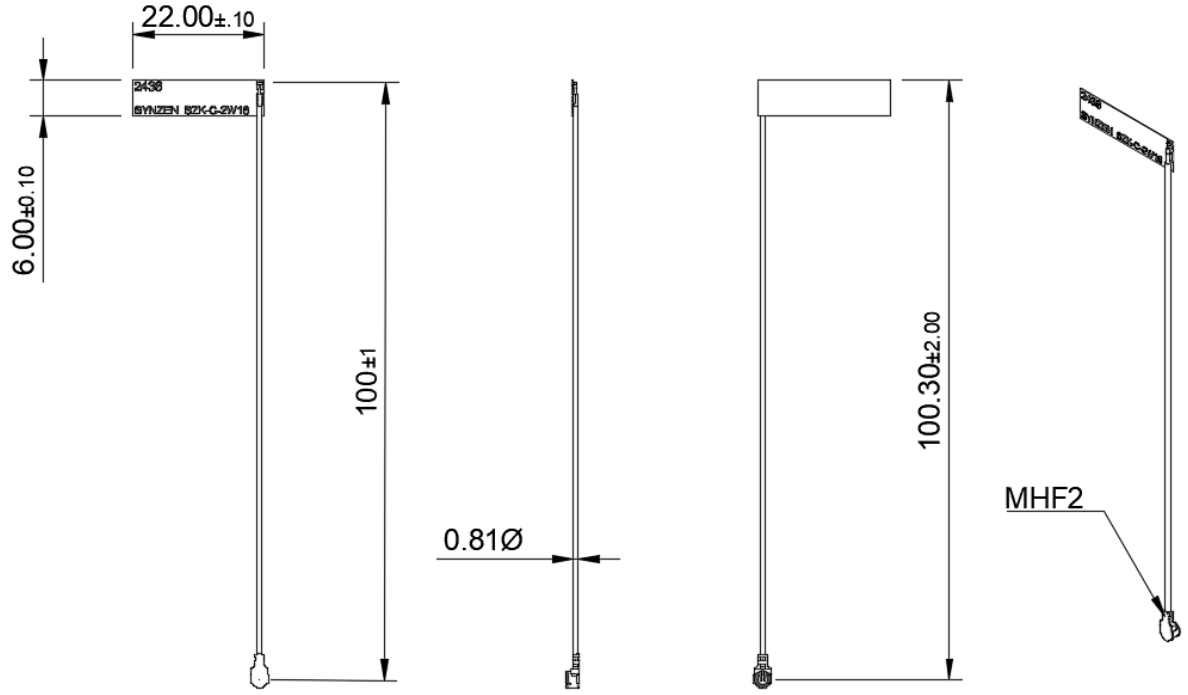

| XY | XZ | YZ |
|---|---|---|
|  |  |  |



Max: 5
Min: -30
Scale: 5/div

6100
6500
7100

Mechanical Drawing




ALL DIMENSIONS IN MM

# Packaging

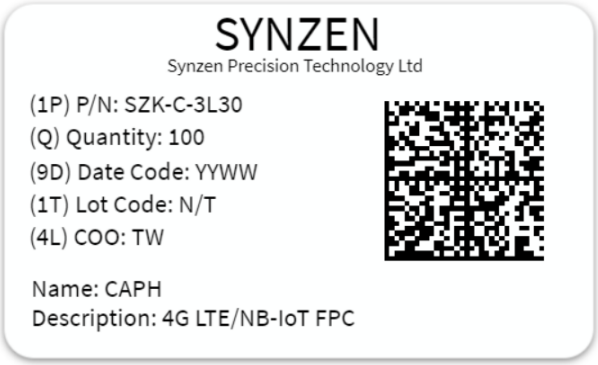
Antennas packed in PE bag (20 per bag)

Small bag dimensions: 28.5 x 9.5 (cm)

100pcs per larger PE bag with product label

Bag dimensions = 30 x 19 (cm)

Label




# Material Regulation

The antenna has been assessed to conform to RoHS requirements. A certificate of conformance is available upon request.