

WI-FI 6 / 6E / 7 FPC

TAURI

Tri-band Wi-Fi FPC Antenna

SZK-C-2W16

FREQUENCY

2.4 / 5 / 6 GHz

PEAK GAIN

Up to 4.90 dBi

CONNECTOR

MHF2, 100 mm

SIZE

22.0 × 6.0 × 0.2 mm

2.4 GHZ

2400 to 2500 MHz

Covers Wi-Fi, Bluetooth, ZigBee

5 GHZ

4900 to 5850 MHz

Covers Wi-Fi, C-V2X, DSRC

6 GHZ

5925 to 7125 MHz

Covers Wi-Fi 6E / 7

Key Features

- Wi-Fi 6 / 7: 2400 to 2500; 4900 to 7125 MHz
- Dimensions: 22.0 × 6.0 × 0.2 mm
- Cable length: 100 mm, 0.81 mm Ø
- Connector: MHF2 (U.FL compatible)
- RoHS compliant

1 Introduction

TAURI (SZK-C-2W16) from Synzen is a cutting-edge, ultra-compact antenna specifically designed for Wi-Fi applications across the 2.4 GHz, 5 GHz, and 6 GHz 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 × 6 × 0.2 mm. 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.

— Features

- ◆ Wi-Fi 6 / 7: 2400 to 2500; 4900 to 7125 MHz
- ◆ Dimensions: 22.0 × 6.0 × 0.2 mm
- ◆ Cable length: 100 mm, 0.81 mm Ø
- ◆ Connector: MHF2 (U.FL compatible)
- ◆ RoHS compliant

— Applications

- | | |
|------------------|-----------------------|
| ◆ Tablets | ◆ IoT Devices |
| ◆ Smart Displays | ◆ Compact Electronics |

2 Mechanical Specifications

Part Number	SZK-C-2W16
Name	TAURI
Dimensions (mm)	22.0 × 6.0 × 0.2
Weight	<1.5 g
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 on request

3 Electrical / RF Specifications

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

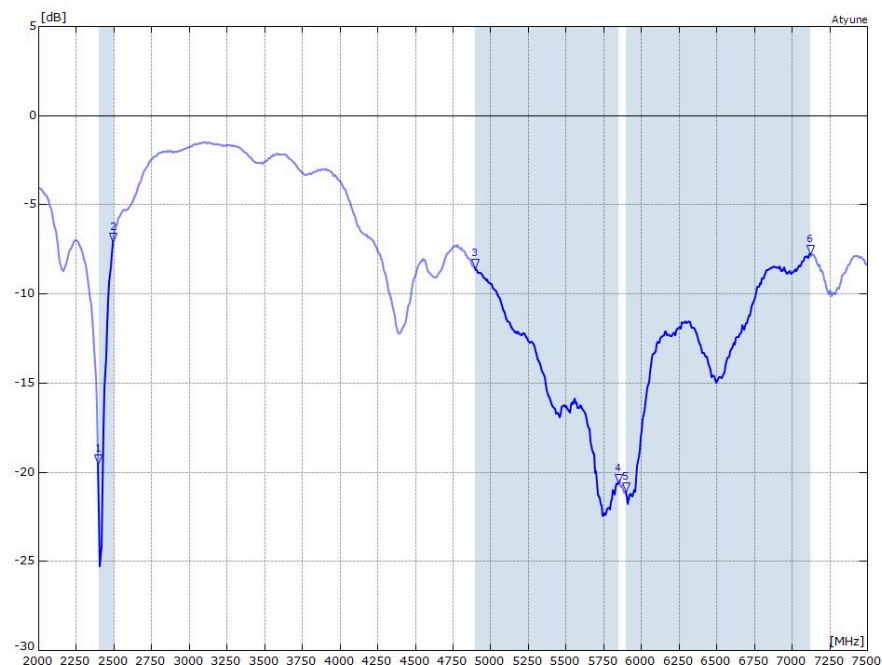
Note: The antenna performance was measured on a 2 mm thick ABS plastic sheet.

4 Environmental

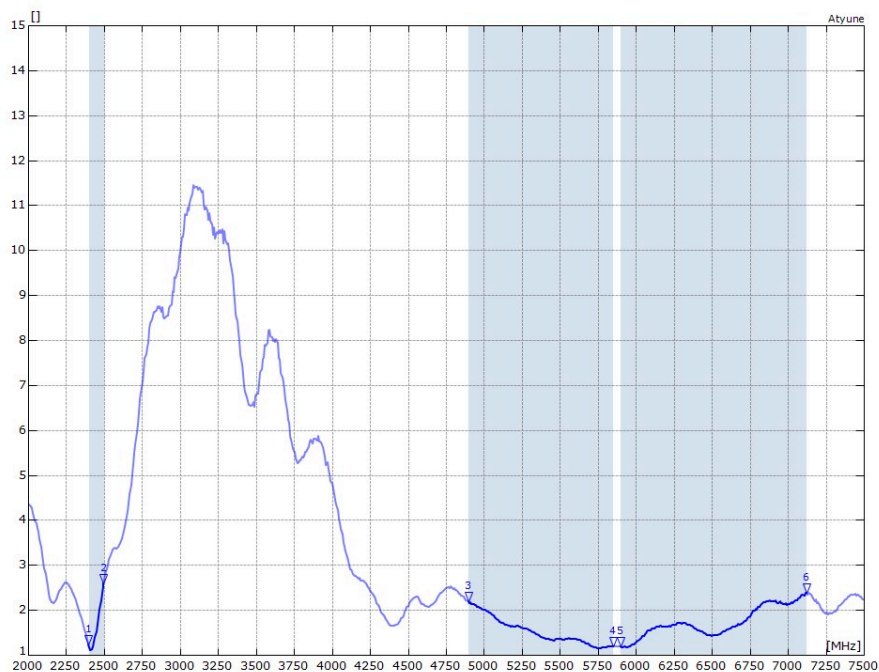
Operational Temperature	-40 to +85°C
Storage Temperature	-40 to +85°C
Relative Humidity (Storage)	65 ±20% RH
Moisture Sensitivity Level (MSL)	1
RoHS and REACH compliant	Yes

5 RF Characteristics

S11 Parameter



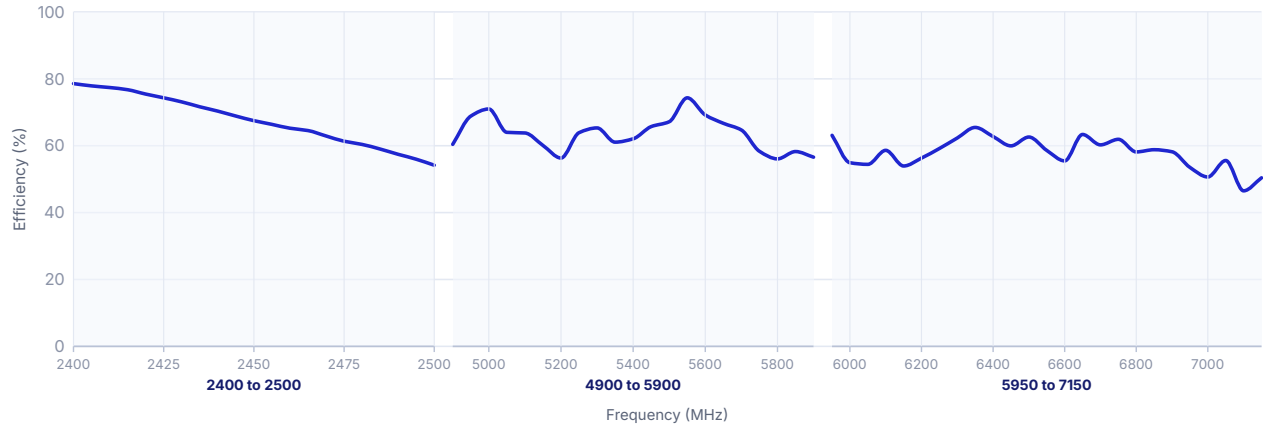
VSWR



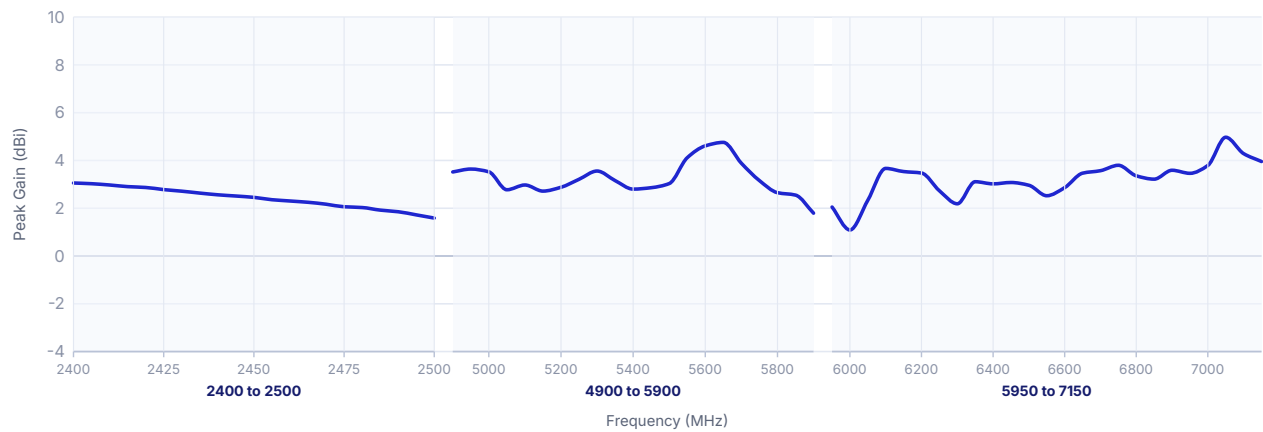
6

Antenna Performance

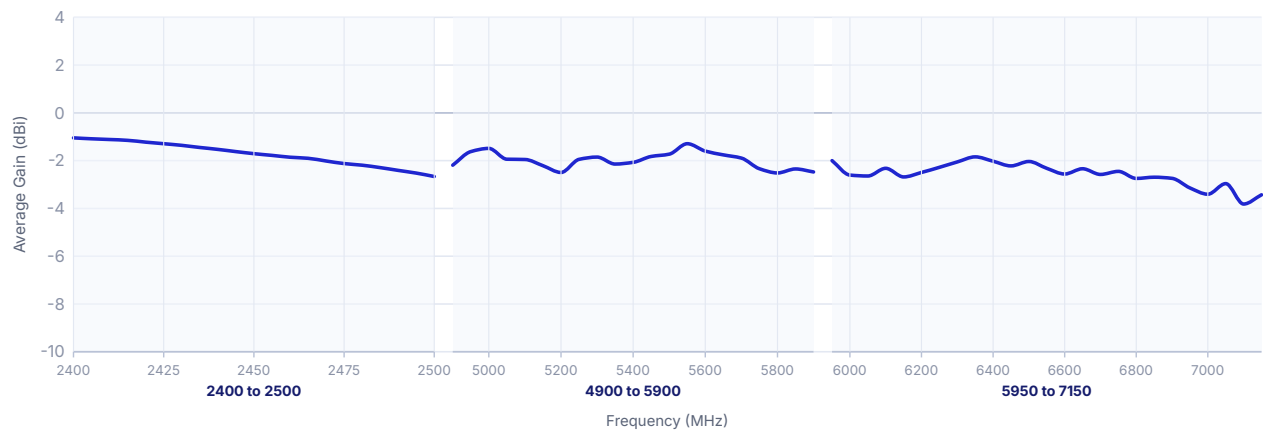
Efficiency



Peak Gain

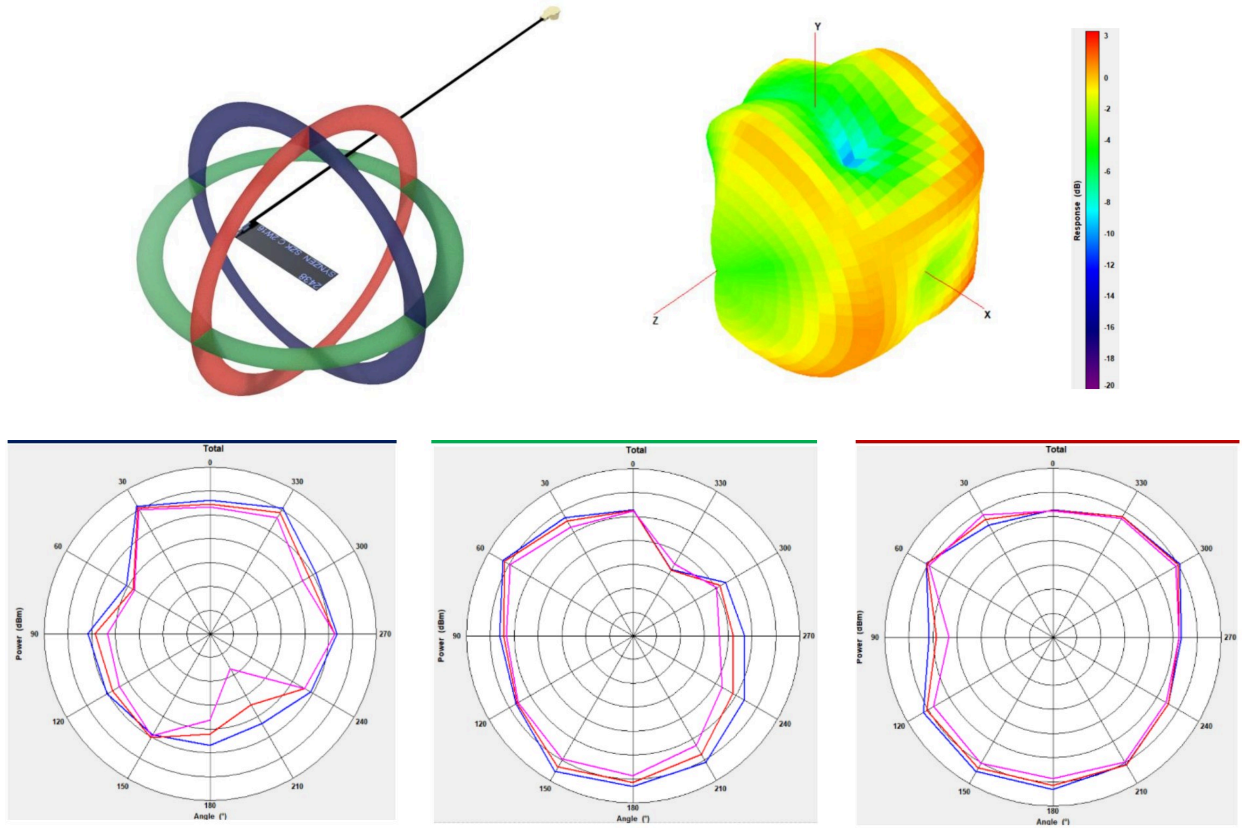


Average Gain



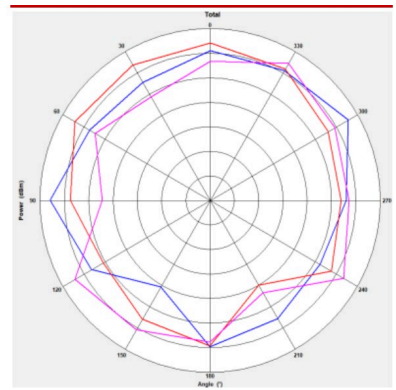
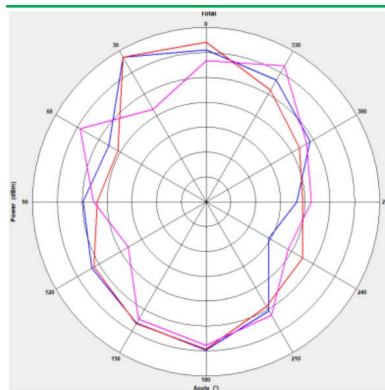
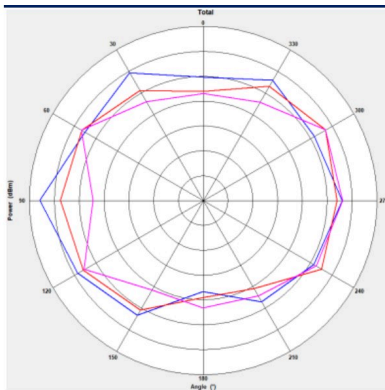
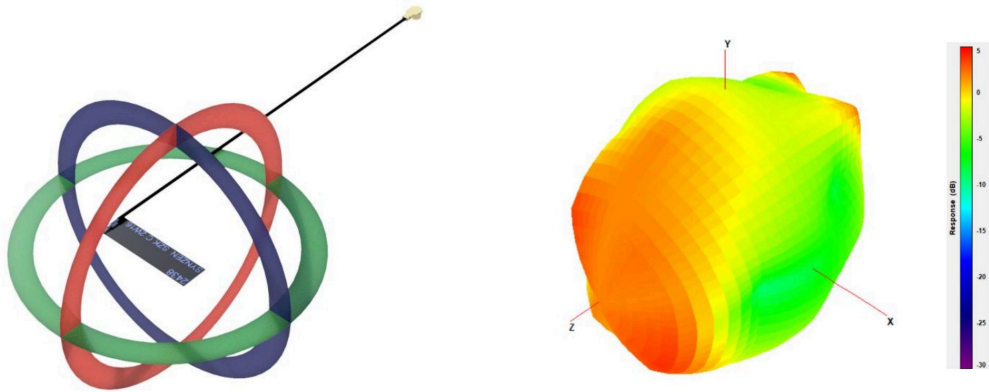
7 Radiation Patterns at 2450 MHz

MEASURED ON A 2 MM THICK ABS PLASTIC SHEET



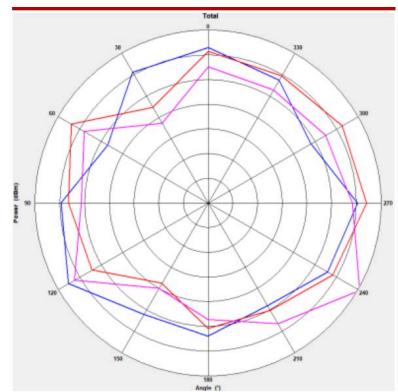
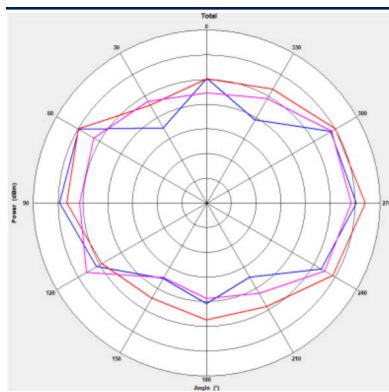
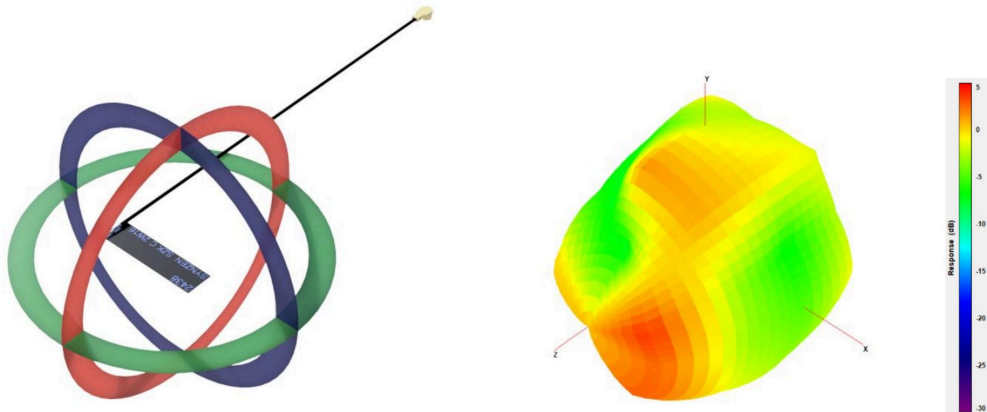
8 Radiation Patterns at 5500 MHz

MEASURED ON A 2 MM THICK ABS PLASTIC SHEET

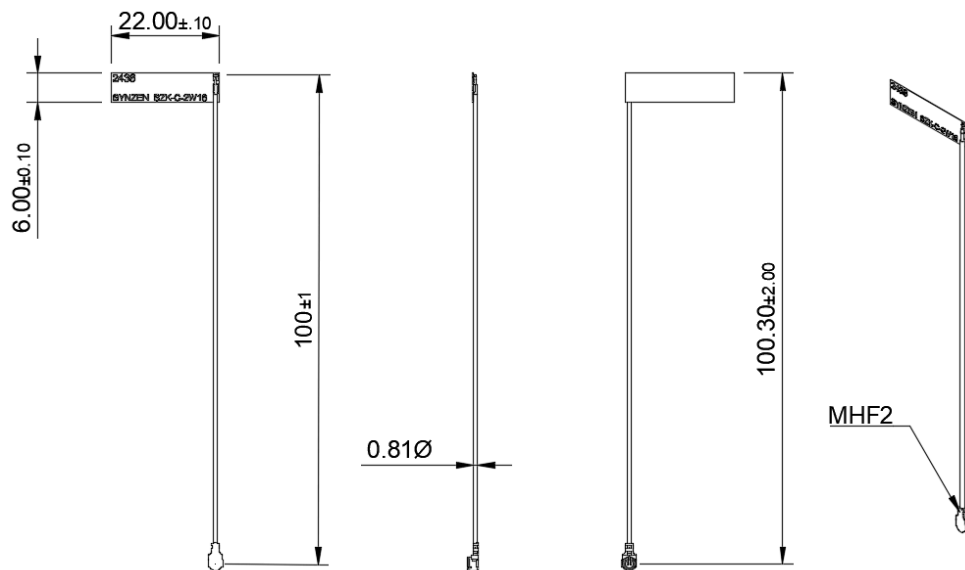


9 Radiation Patterns at 6500 MHz

MEASURED ON A 2 MM THICK ABS PLASTIC SHEET



10 Mechanical Drawing



ALL DIMENSIONS IN MM



All dimensions in mm

11 Antenna Detail



12 Packaging

- ◆ Antennas packed in PE bag (20 per bag)
- ◆ Small bag dimensions: 28.5 × 9.5 cm
- ◆ 100 pcs per larger PE bag with product label
- ◆ Bag dimensions: 30 × 19 cm

13 Compliance

ROHS

Compliant

Conforms to EU RoHS Directive 2011/65/EU as amended by Delegated Directive (EU) 2015/863.

REACH

Compliant

Conforms to EU REACH Regulation (EC) No 1907/2006.

CERTIFICATE

On request

A certificate of conformance is available upon request from sales@synzen.com.tw.

Synzen Precision Technology Ltd makes no warranties based on the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Synzen reserves all rights to this document and the information contained herein. Reproduction, use or disclosure to third parties without express permission is strictly prohibited.