



FXP40.07.0085A

## Specification

<b>Part No.</b>	<b>FXP40.07.0085A</b>
<b>Product Name</b>	Quad-Band GSM850/GSM900/DCS/PCS Flexible PCB Antenna
<b>Features</b>	<ul style="list-style-type: none"> <li>824-960/1710-1990MHz Application bands</li> <li>1.37 dBi Peak Gain</li> <li>42.6*12.1*0.15mm Tiny Dimension</li> <li>IPEX MHFI (U.FL Compatible)</li> <li>85mm 1.13mm cable</li> <li>RoHS Compliant</li> </ul>



## 1. Introduction

The FXP40 is a super small monopole ultra-low profile antenna for GSM850/GSM900/DCS/PCS quad bands. The FXP40 has a peak gain of 1.3dBi and efficiencies of 56%.

It is made from poly-flexible material, has a tiny form factor (42.6mm\*12.1mm\*0.15mm) and has double-sided 3M tape for easy “peel and stick” mounting.

Across the bands and is designed to be mounted directly onto a plastic. It is an ideal choice for any device maker that needs to keep manufacturing costs down over the lifetime of a product.

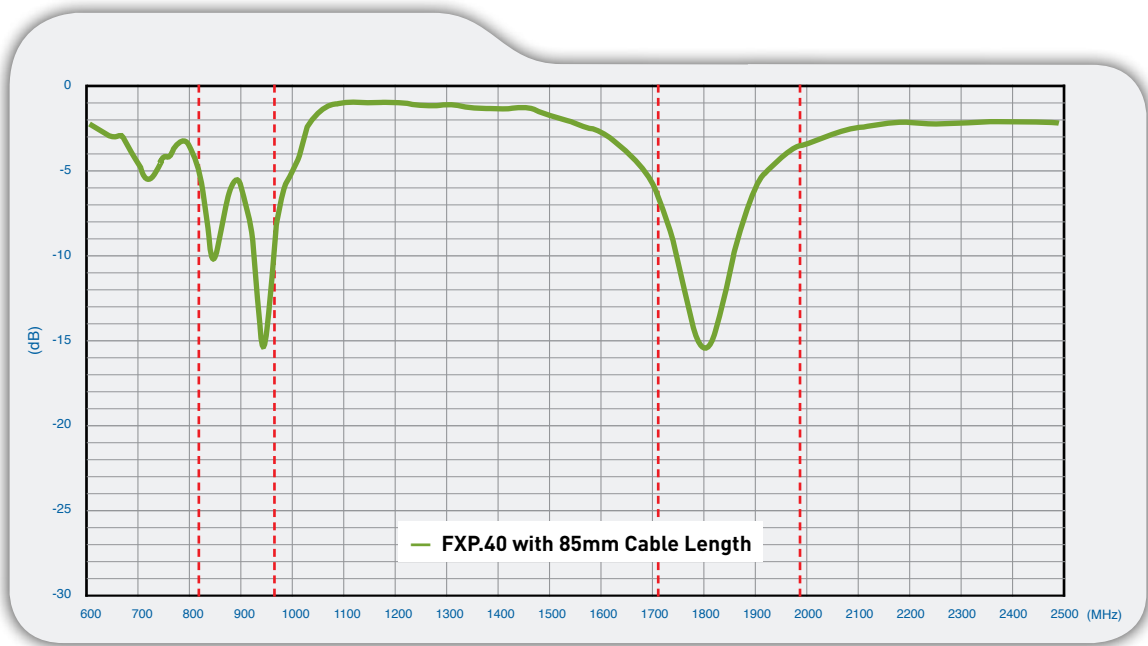
The cables length can be customizable for customers.

## 2. Specification

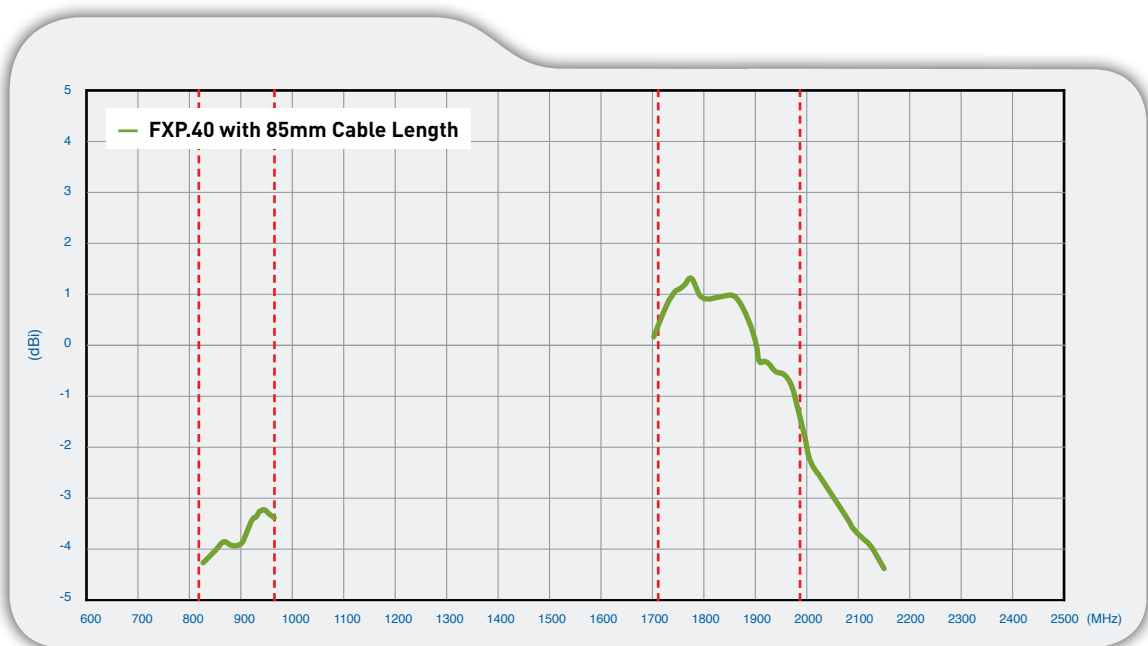
ELECTRICAL				
	GSM850	GSM850	DCS	PCS
<b>Frequency (MHz)</b>	824~896	824~896	1710~1880	1850~1990
<b>Max Return Loss (dB)</b>	<-5	<-5	<-5	<-3
<b>Peak Gain (dBi)</b>	-3.83	-3.83	1.37	1.03
<b>Efficiency (%)</b>	24	24	51	56
<b>Average Gain (dB)</b>	-6.22	-6.22	-2.87	-2.49
<b>Radiation Properties</b>	Omni-directional			
<b>Max Input Power (Watts)</b>	5			
<b>Polarization</b>	Linear			
<b>Impedance (Ohms)</b>	50 Ohms			
MECHANICAL				
<b>Dimensions (mm)</b>	46.2*12.1*0.15 mm			
<b>Material</b>	Flexible Polymer			
<b>Connector and Cable</b>	IPEX MHFI(U.FL Compatible) and 1.13 mm mini coax			
<b>Weight</b>	88g			
ENVIRONMENTAL				
<b>Operation Temperature</b>	-40°C to 85°C			
<b>Storage Temperature</b>	-40°C to 85°C			
<b>Relative Humidity</b>	40% to 95%			
<b>RoHs Compliant</b>	Yes			

### 3. Antenna Parameters

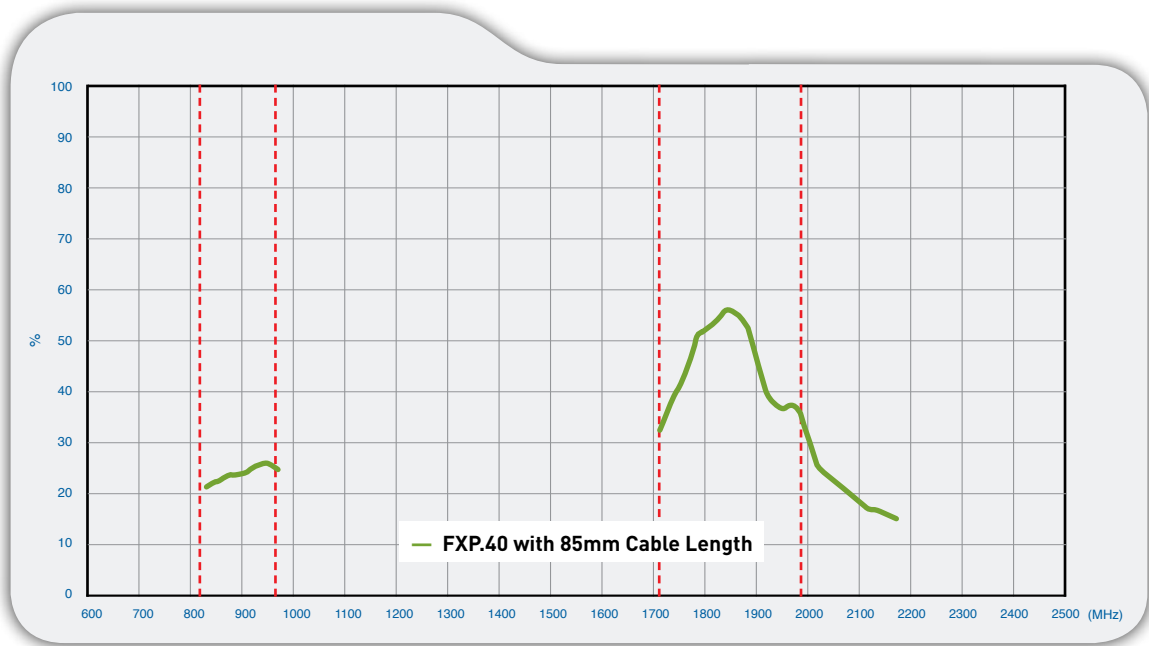
#### 3.1. Return Loss



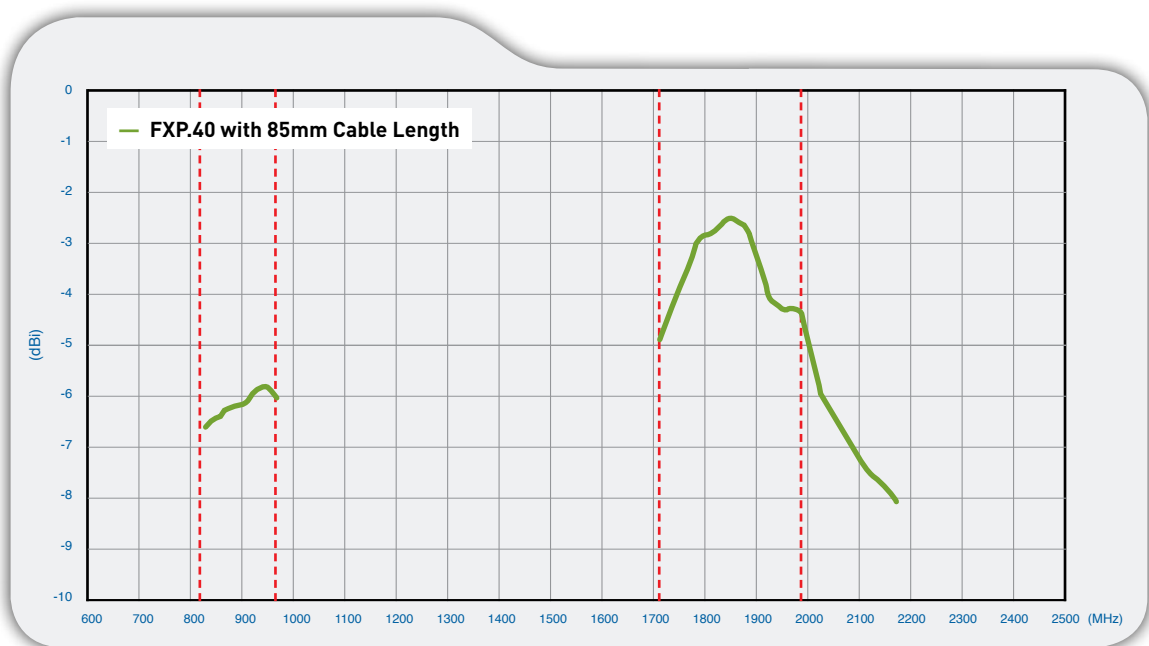
#### 3.2 Peak Gain



### 3.3 Efficiency



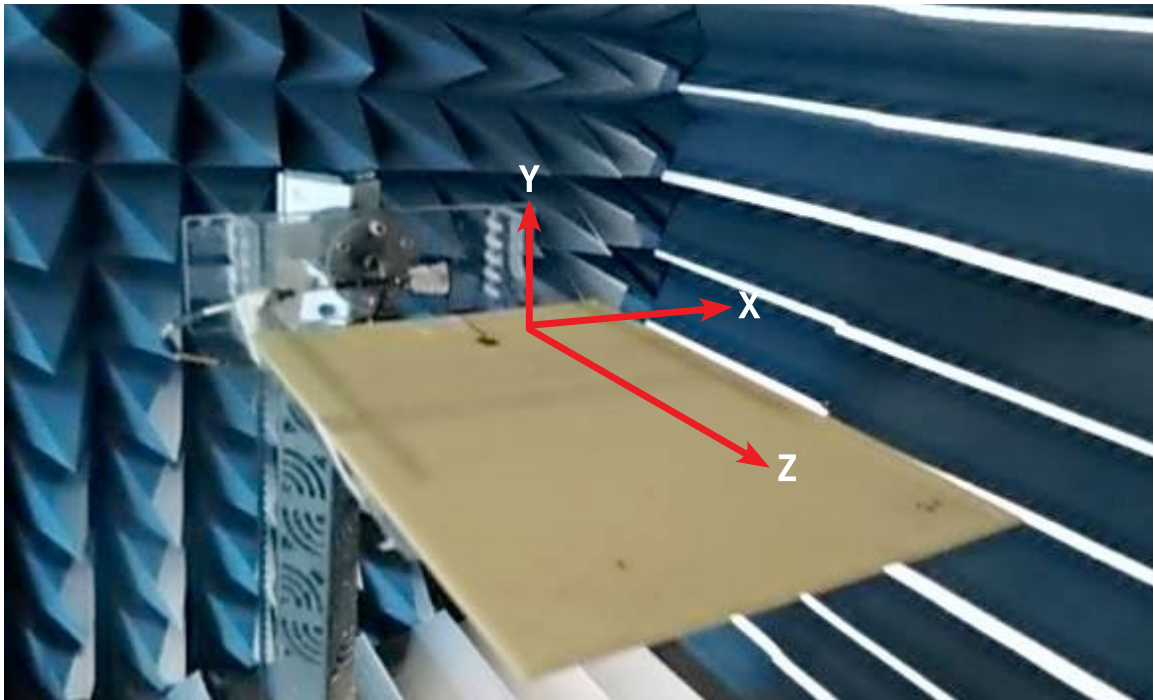
### 3.5 Average Gain



## 4. Antenna Radiation Patterns

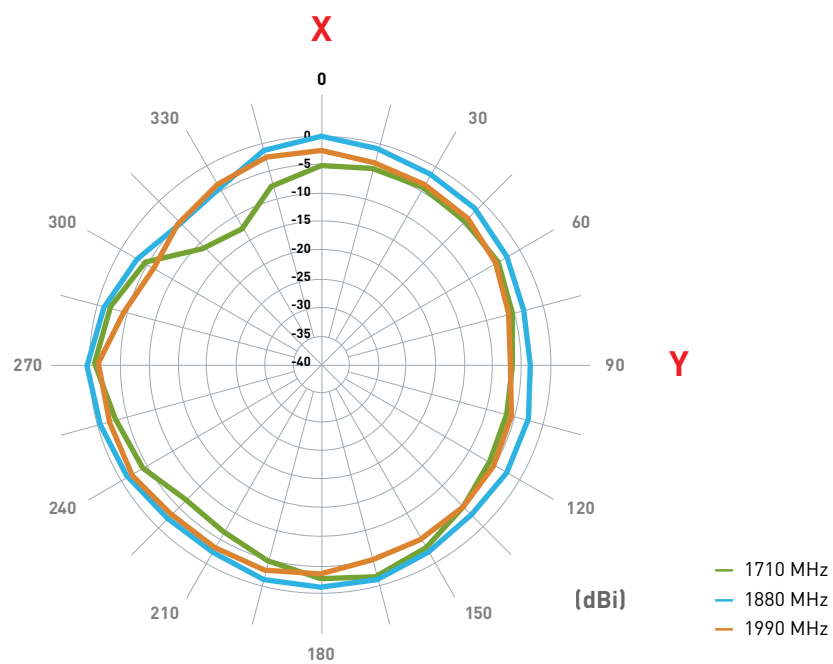
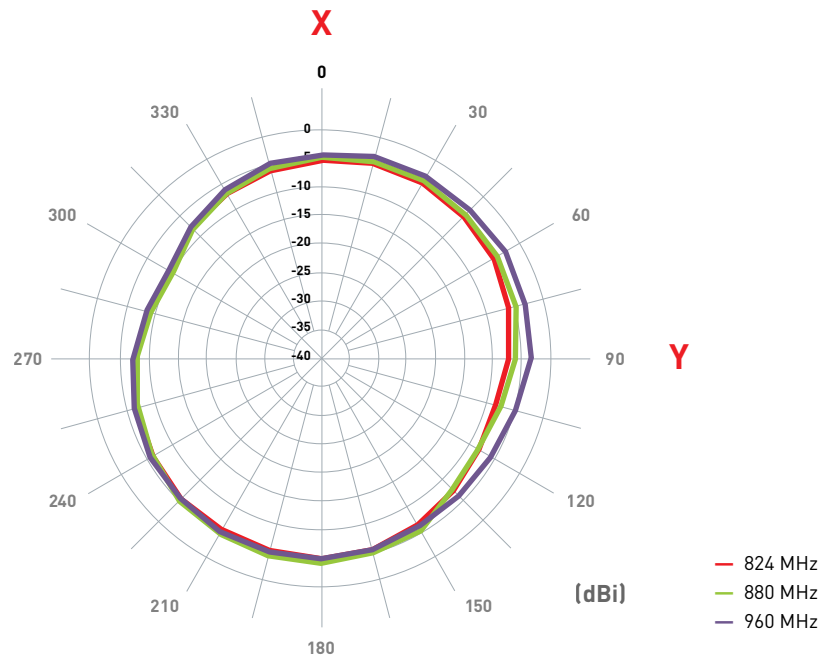
### 4.1 Antenna setup

The antenna radiation pattern measured setup as shown the below:



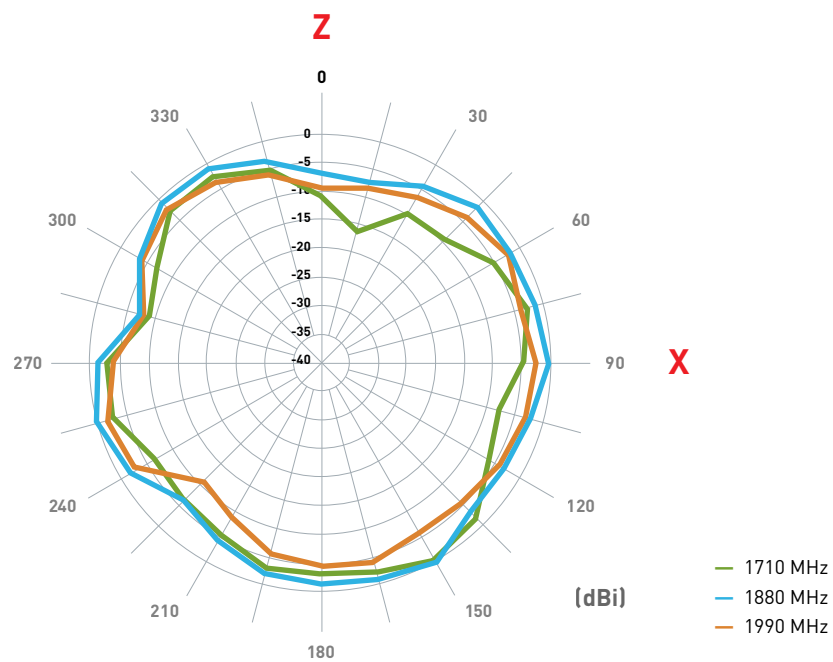
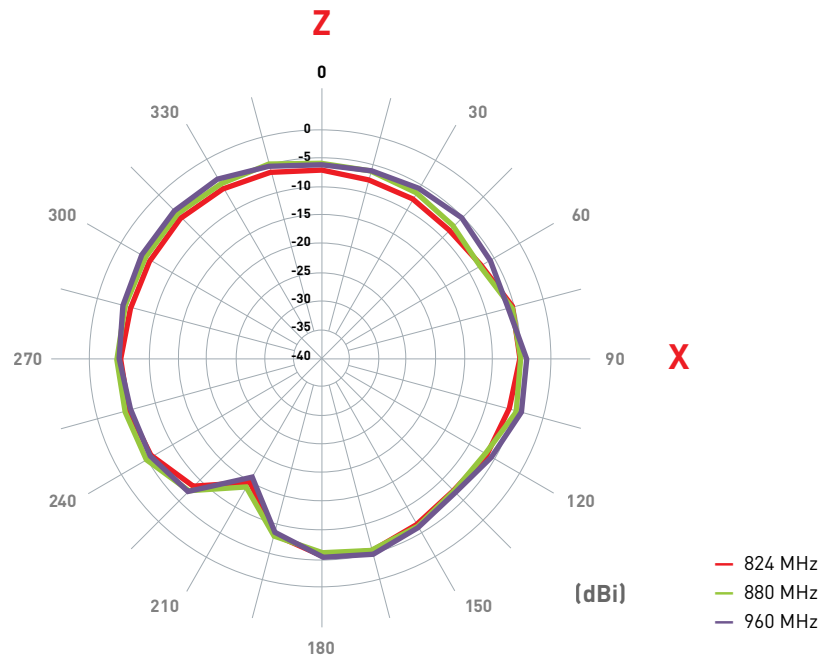
## 4.2 Antenna radiation patterns

### XY-Plane



## 4.2 Antenna radiation patterns

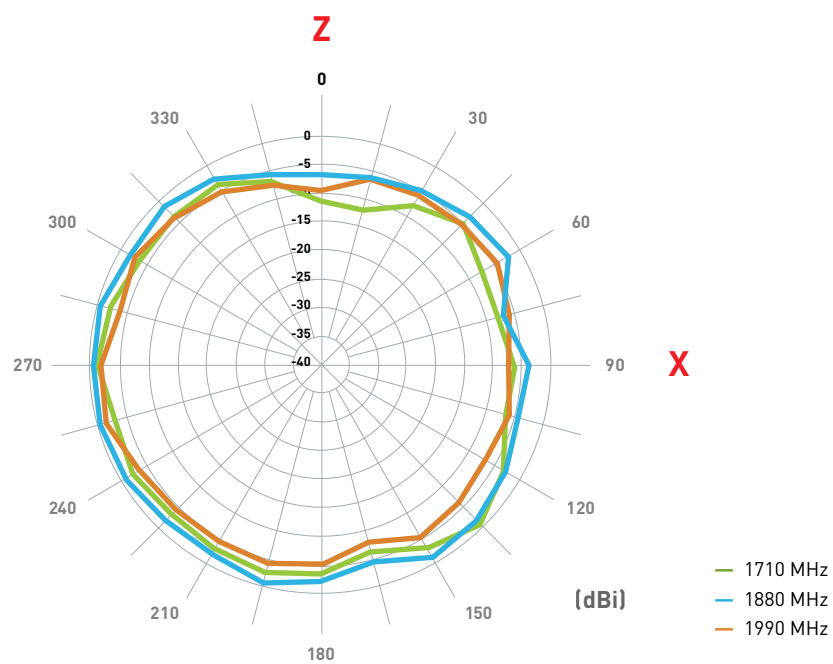
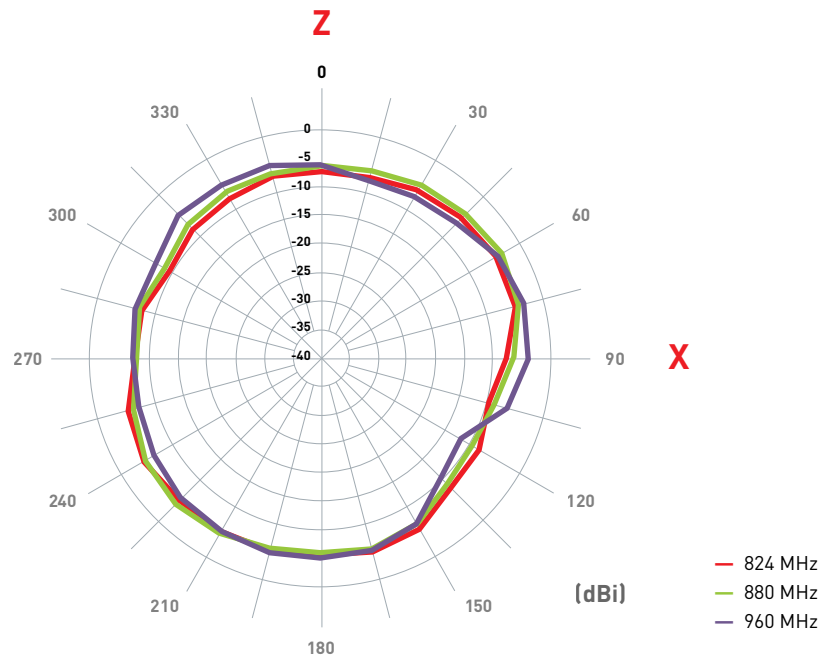
### XZ-Plane



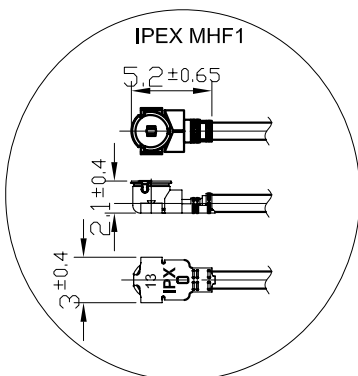
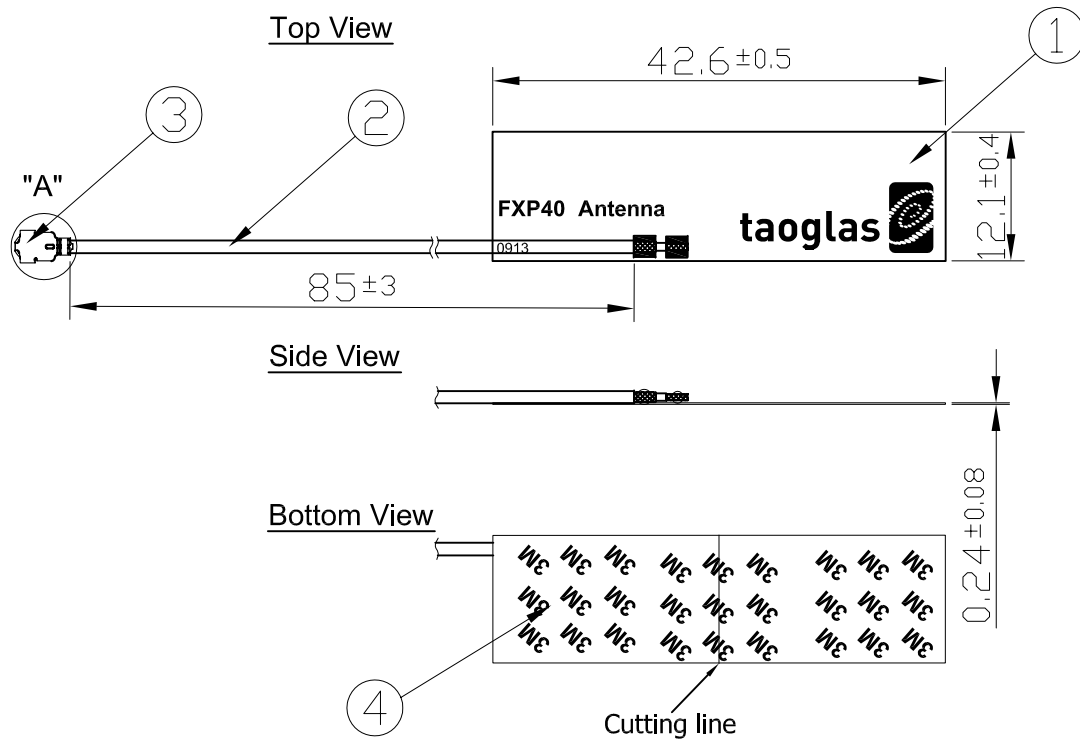


## 4.2 Antenna radiation patterns

### YZ-Plane



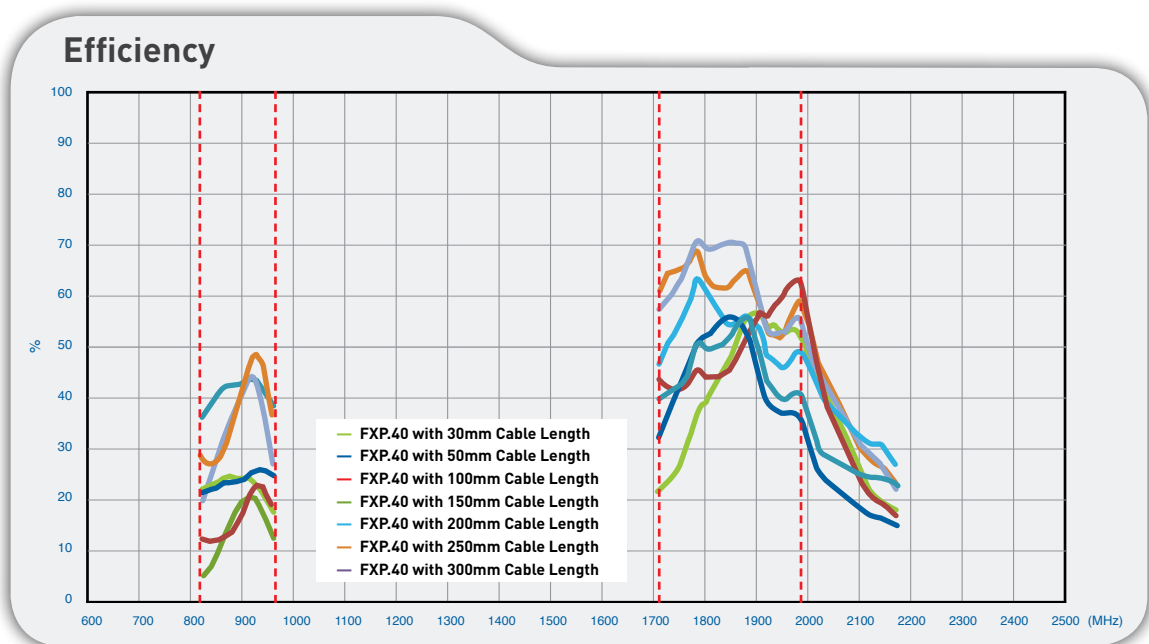
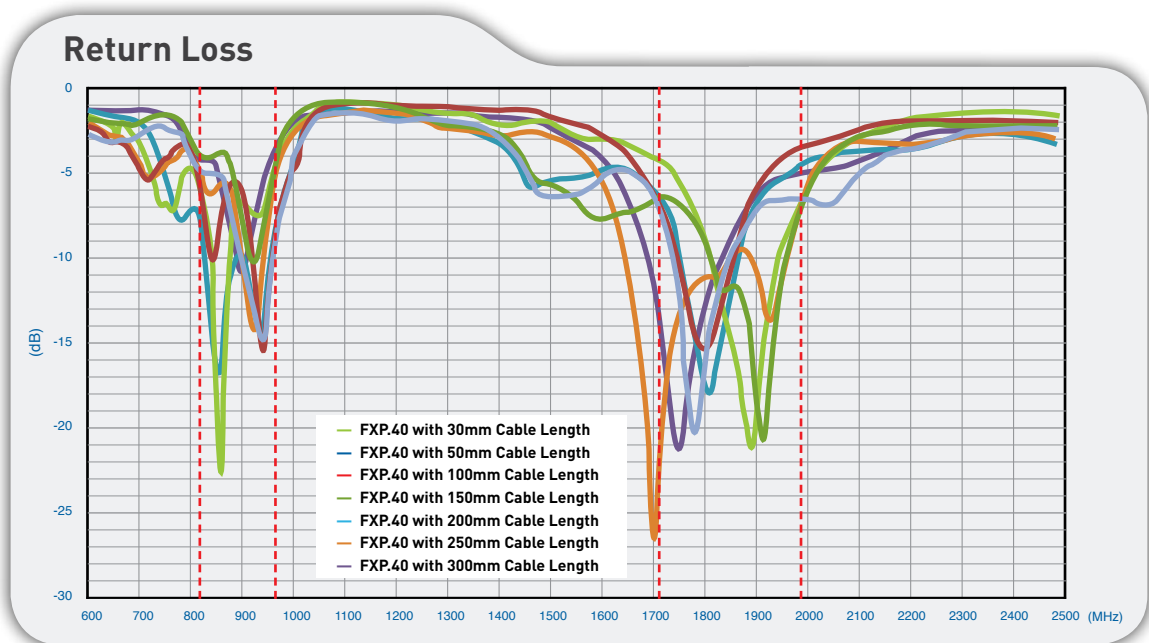
## 5. Mechanical Drawing



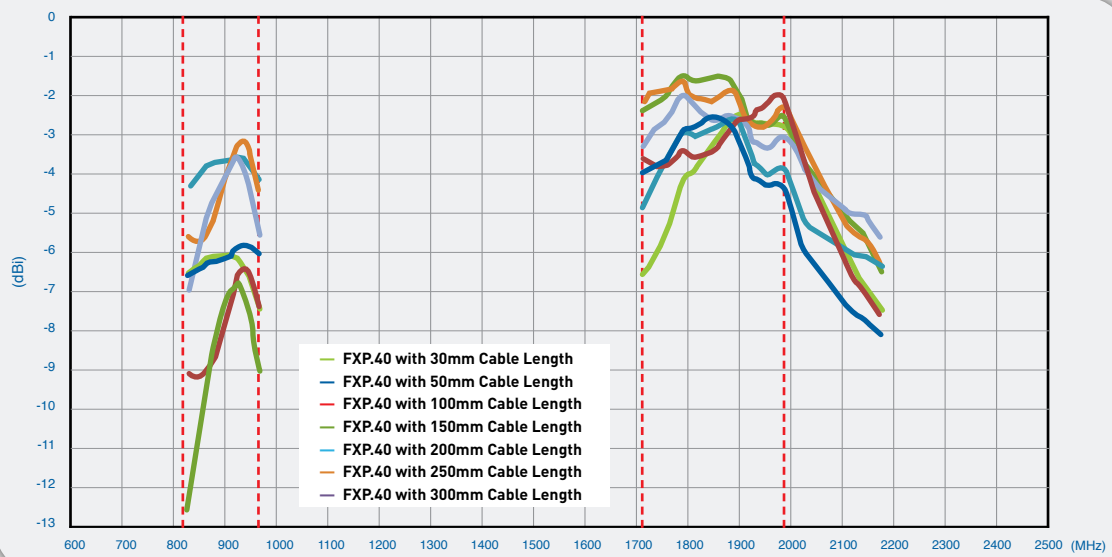
	Name	Material	Finish	Qty
1	FXP40.PCB	FPCB 0.1t	Black	1
2	1.13 Coaxial Cable	FEP	Black	1
3	IPEX MHF1	Brass	Gold	1
4	Double Sided Adhesive	3M 467	Brown Liner	1

## 6. Application Note

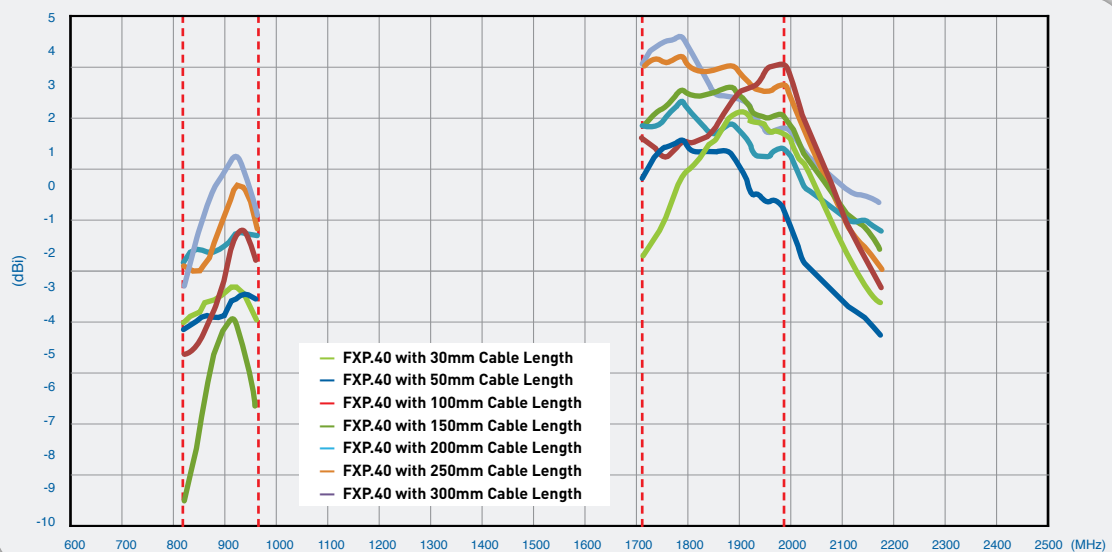
The FXP40 antenna measurement with difference cable length on plastic plate of 2 mm thickness, the performance is shown as below:



### Average Gain

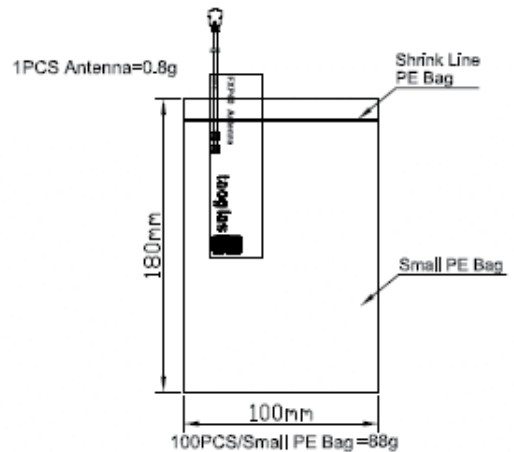


### Peak Gain

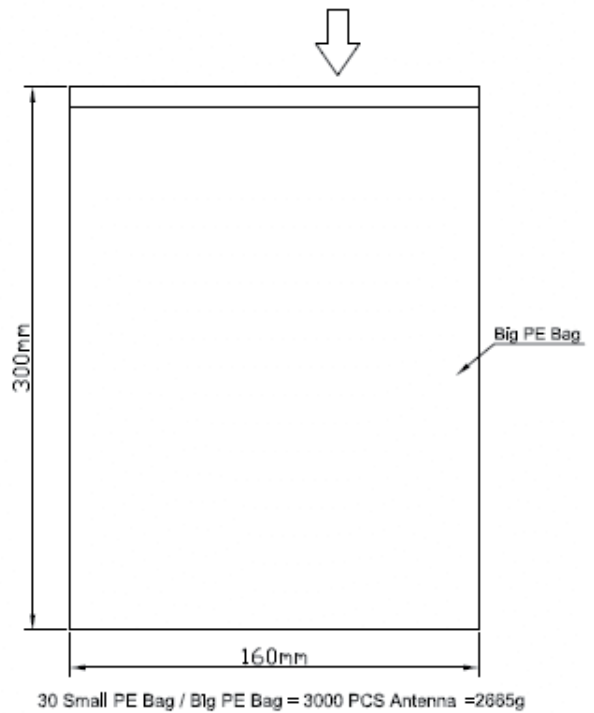


## 7. Packaging

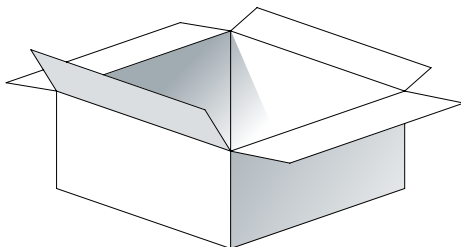
1 piece FXP40 - Weight 0.8g  
100 pieces in small PE bag - Weight 81g



30 small PE bags in 1 large PE bag  
3,000 pieces - Weight 2665g



10 large PE bags per carton  
Carton - 210\*250\*290mm  
Carton Qty - 30,000  
Weight - 28.7Kg



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