



FXP40.07.0085A

Specification

Part No.	FXP40.07.0085A
Product Name	Quad-Band GSM850/GSM900/DCS/PCS Flexible PCB Antenna
Features	824-960/1710-1990MHz Application bands 1.37 dBi Peak Gain 42.6*12.1*0.15mm Tiny Dimension IPEX MHFI (U.FL Compatible) 85mm 1.13mm cable RoHS Compliant



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.

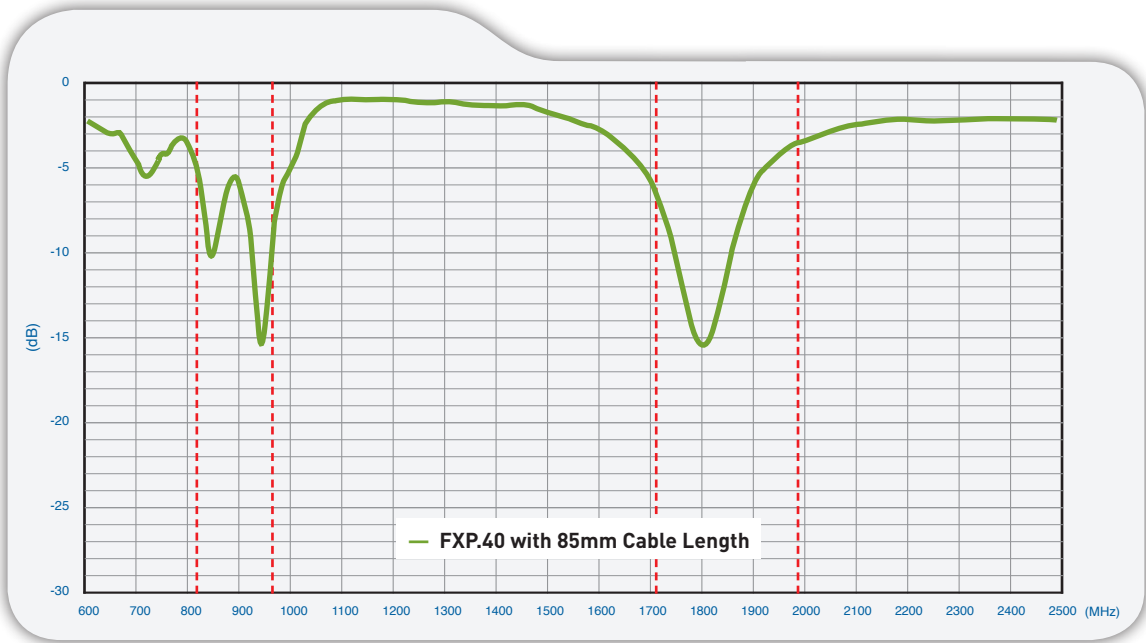
The cables length can be customizable for customers.

2. Specification

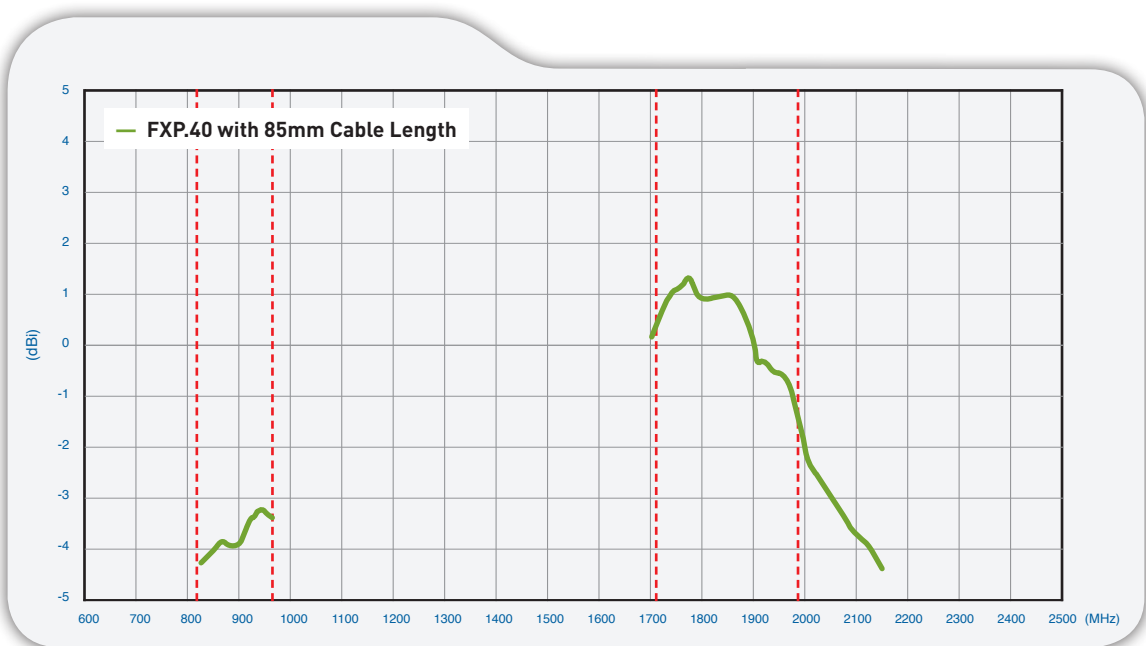
ELECTRICAL				
	GSM850	GSM900	DCS	PCS
Frequency (MHz)	824~896	880~960	1710~1880	1850~1990
Max Return Loss (dB)	<-5	<-5	<-5	<-3
Peak Gain (dBi)	-3.83	-3.25	1.37	1.03
Efficiency (%)	24	26	51	56
Average Gain (dB)	-6.22	-6.57	-2.87	-2.49
Radiation Properties	Omni-directional			
Max Input Power (Watts)	5			
Polarization	Linear			
Impedance (Ohms)	50 Ohms			
MECHANICAL				
Dimensions (mm)	46.2*12.1*0.15 mm			
Material	Flexible Polymer			
Connector and Cable	IPEX MHFI(U.FL Compatible) and 1.13 mm mini coax			
Weight	88g			
ENVIRONMENTAL				
Operation Temperature	-40°C to 85°C			
Storage Temperature	-40°C to 85°C			
Relative Humidity	40% to 95%			
RoHs Compliant	Yes			

3. Antenna Parameters

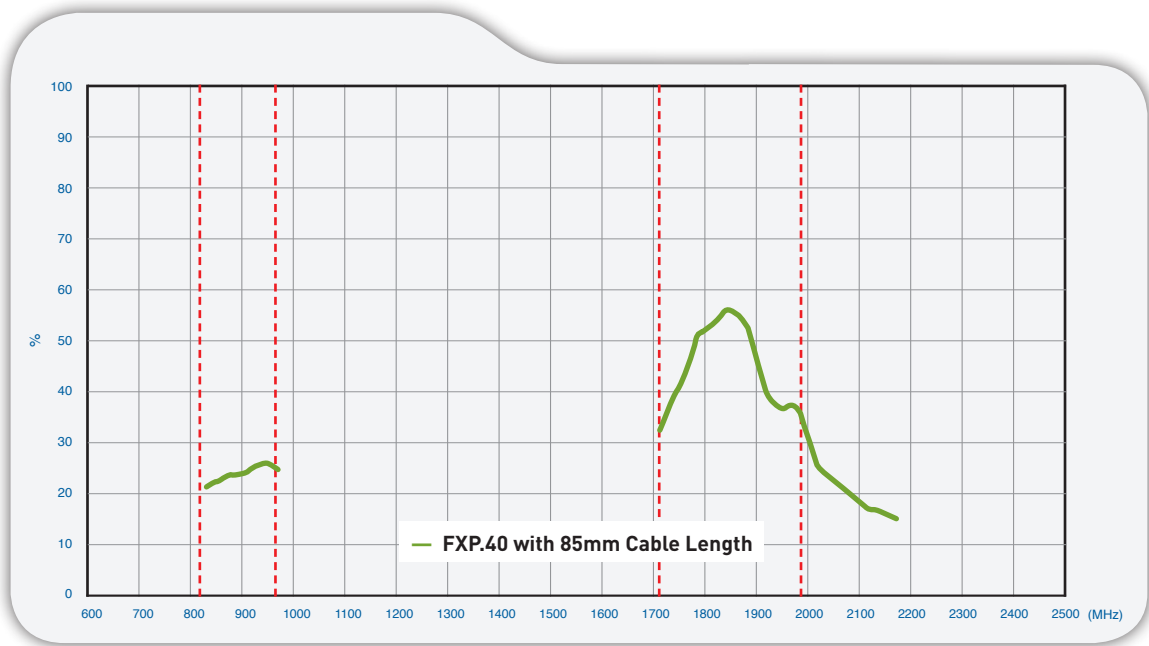
3.1. Return Loss



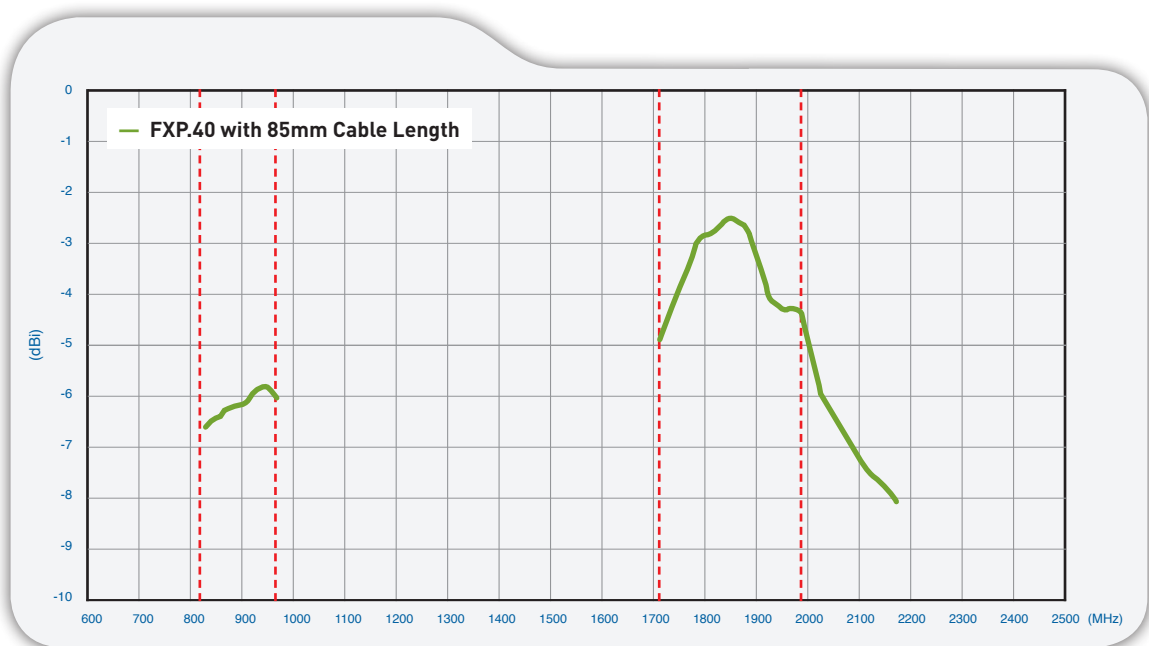
3.2 Peak Gain



3.3 Efficiency



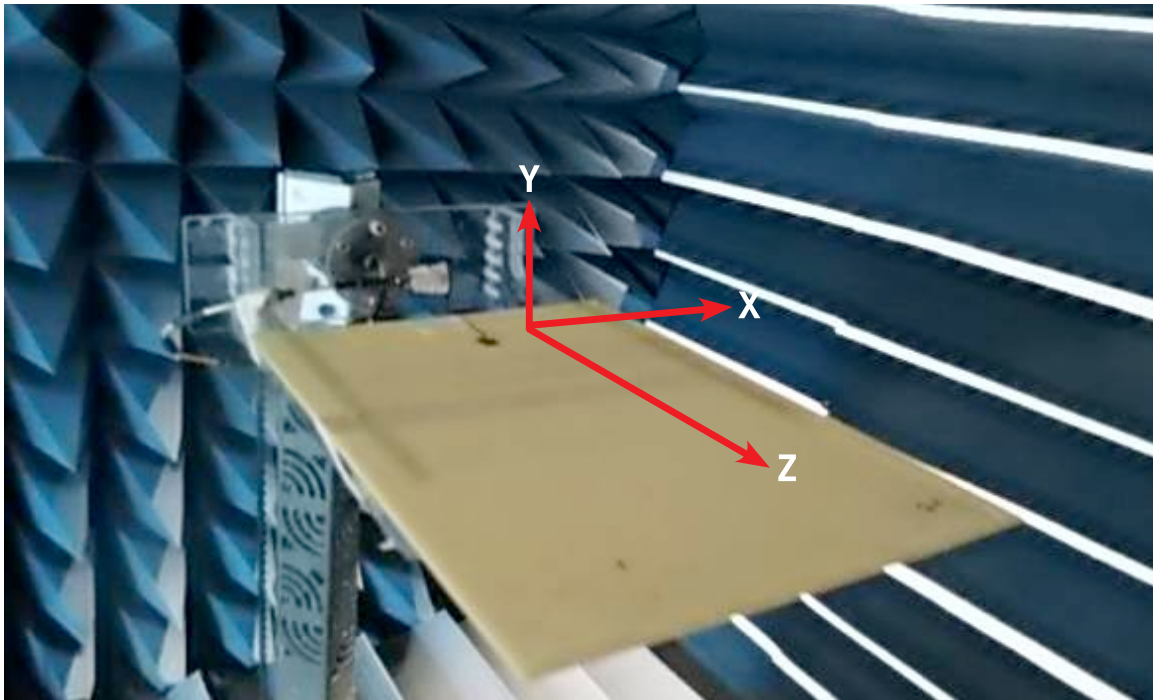
3.5 Average Gain



4. Antenna Radiation Patterns

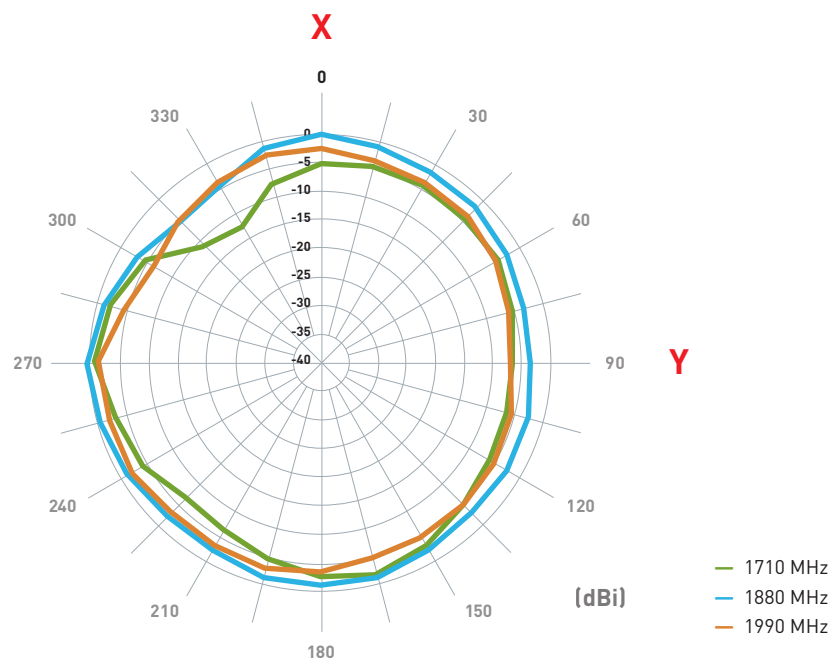
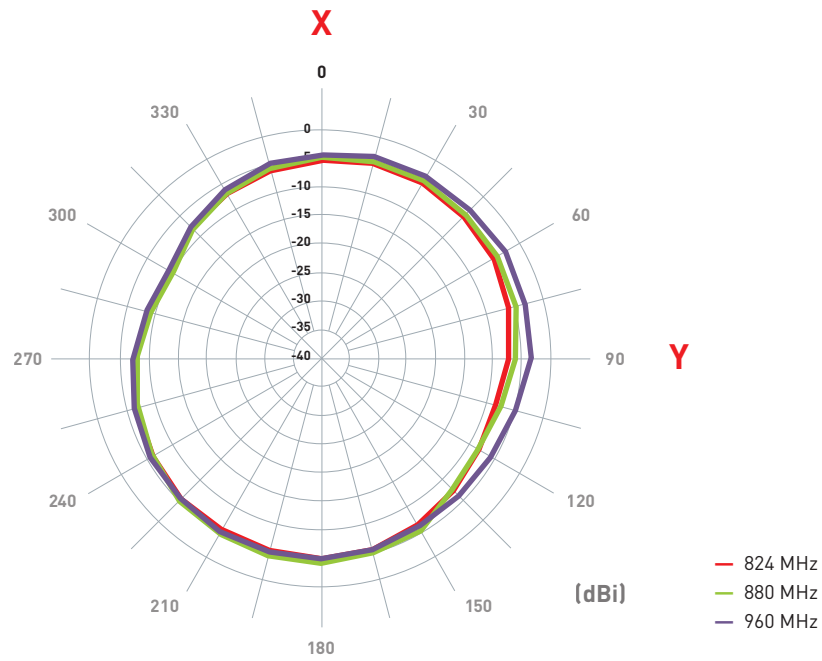
4.1 Antenna setup

The antenna radiation pattern measured setup as shown the below:



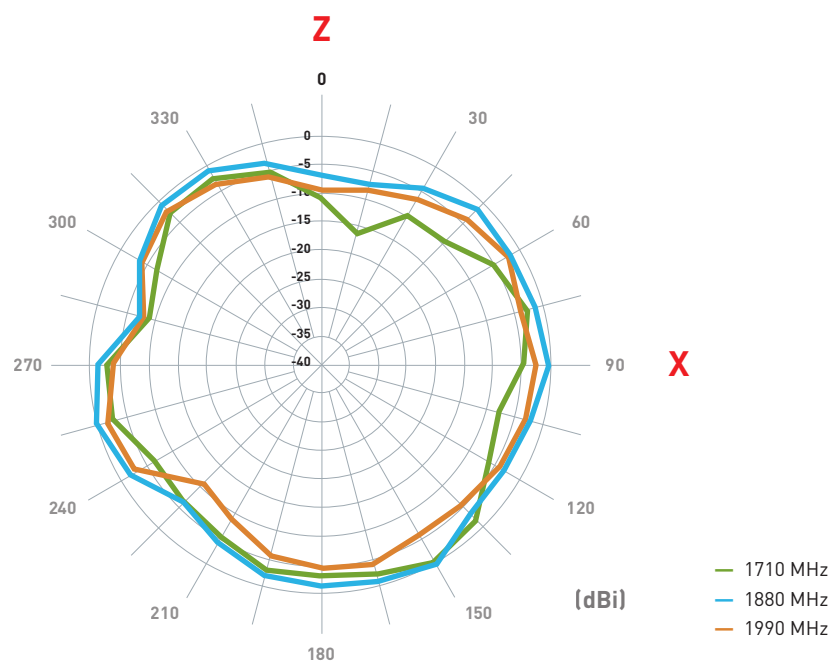
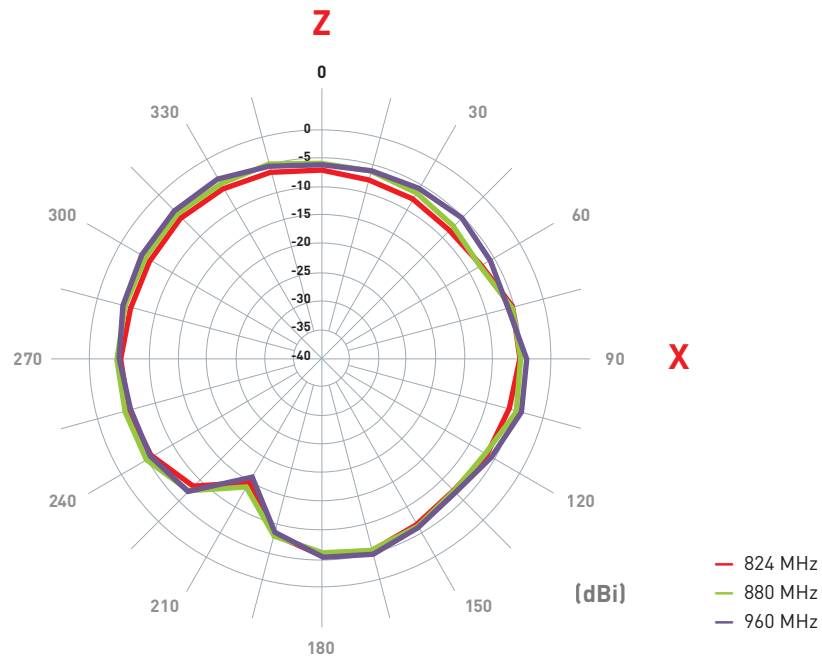
4.2 Antenna radiation patterns

XY-Plane



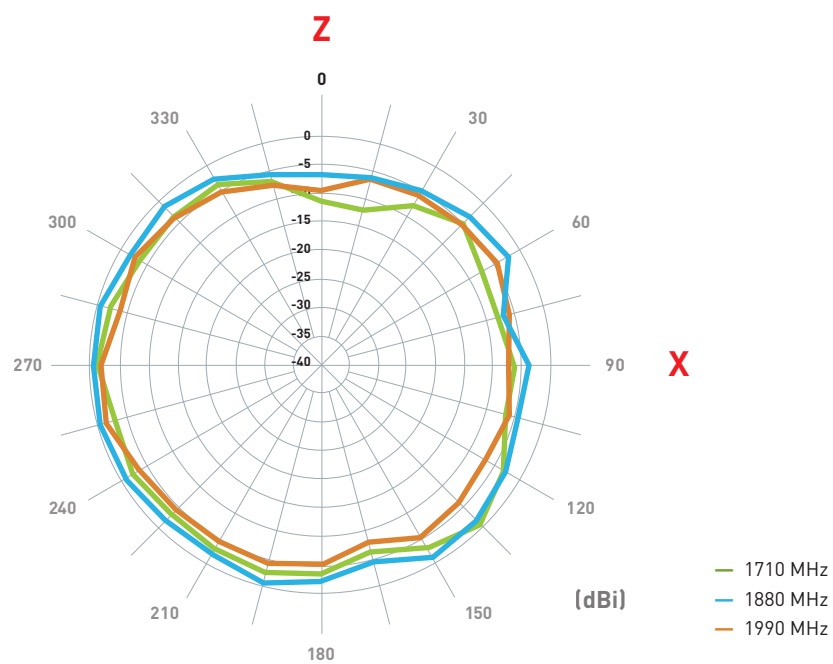
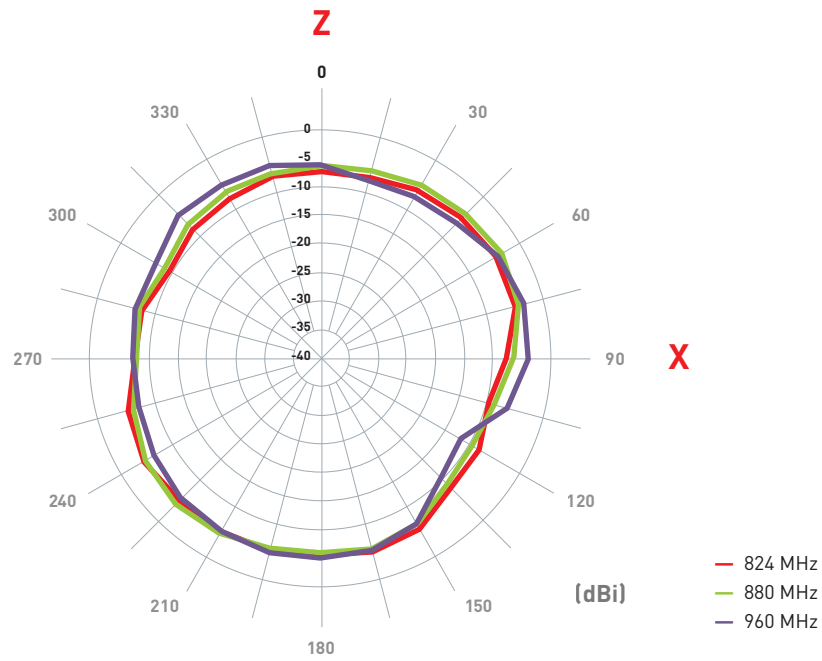
4.2 Antenna radiation patterns

XZ-Plane

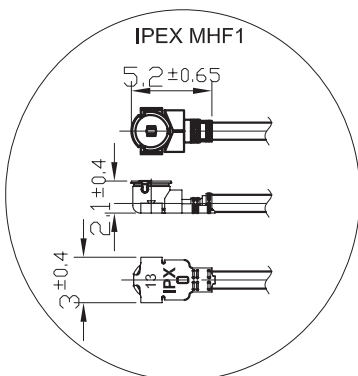
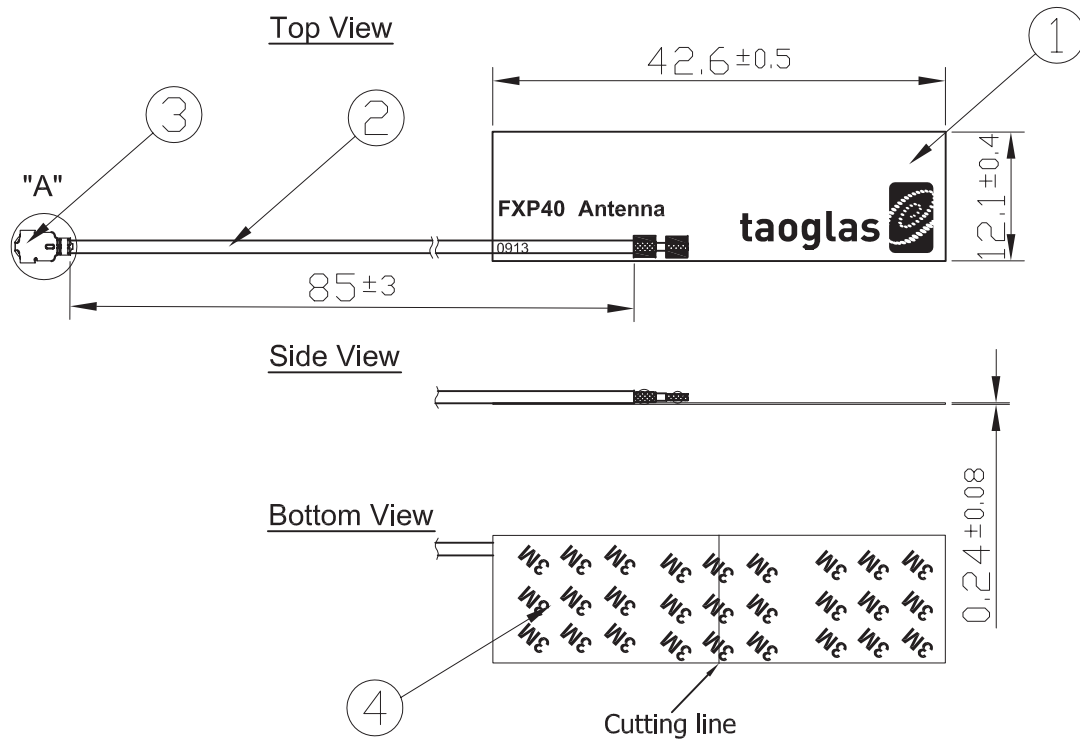


4.2 Antenna radiation patterns

YZ-Plane



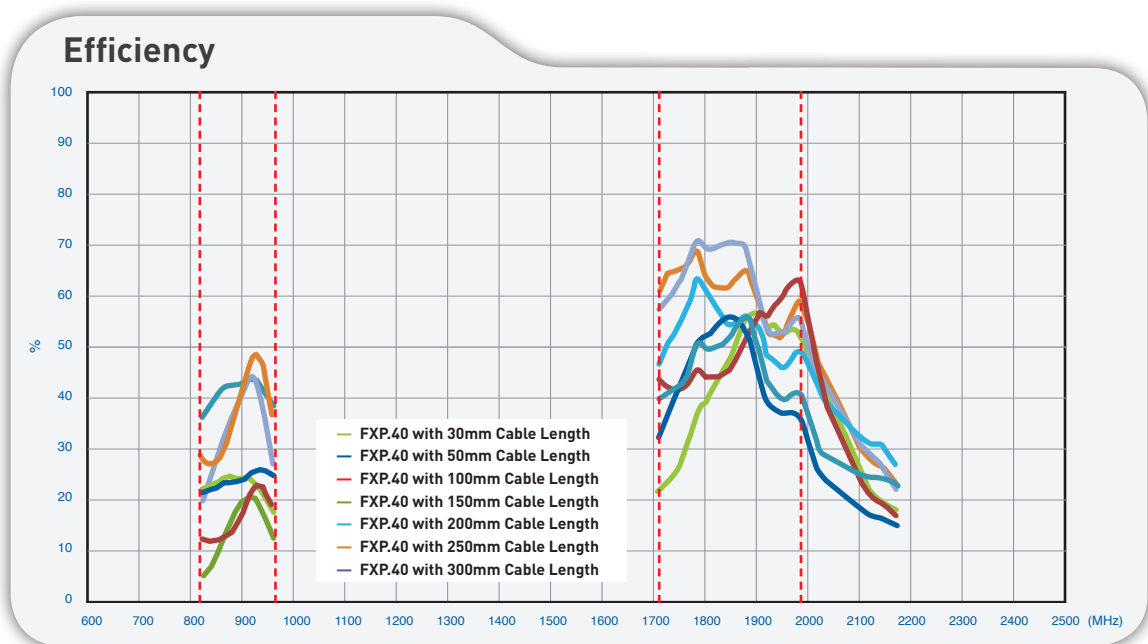
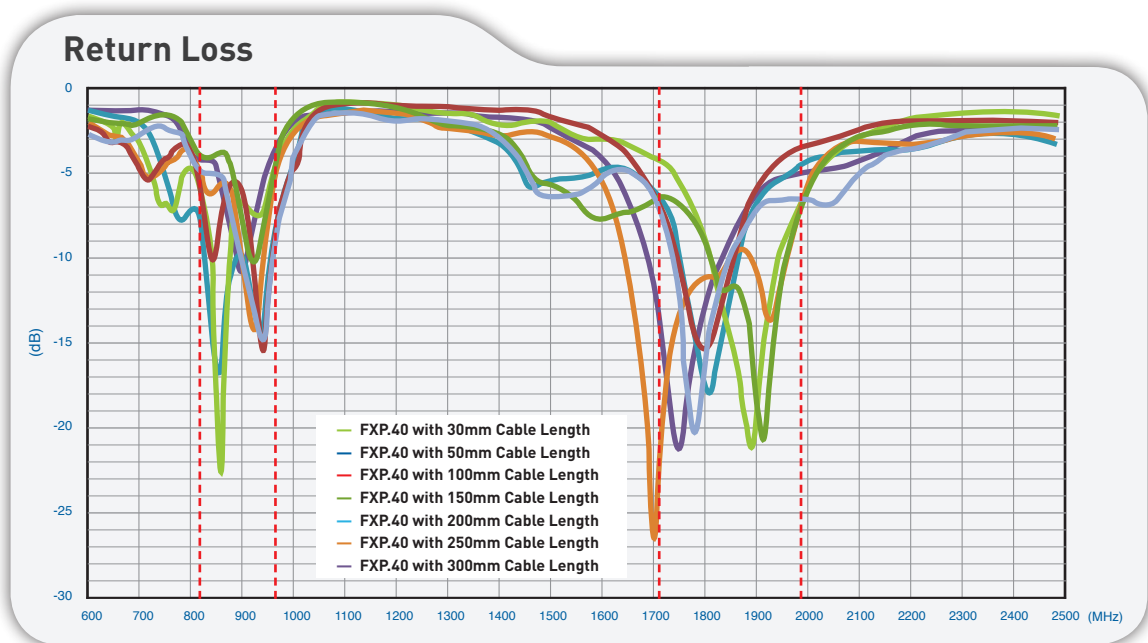
5. Mechanical Drawing



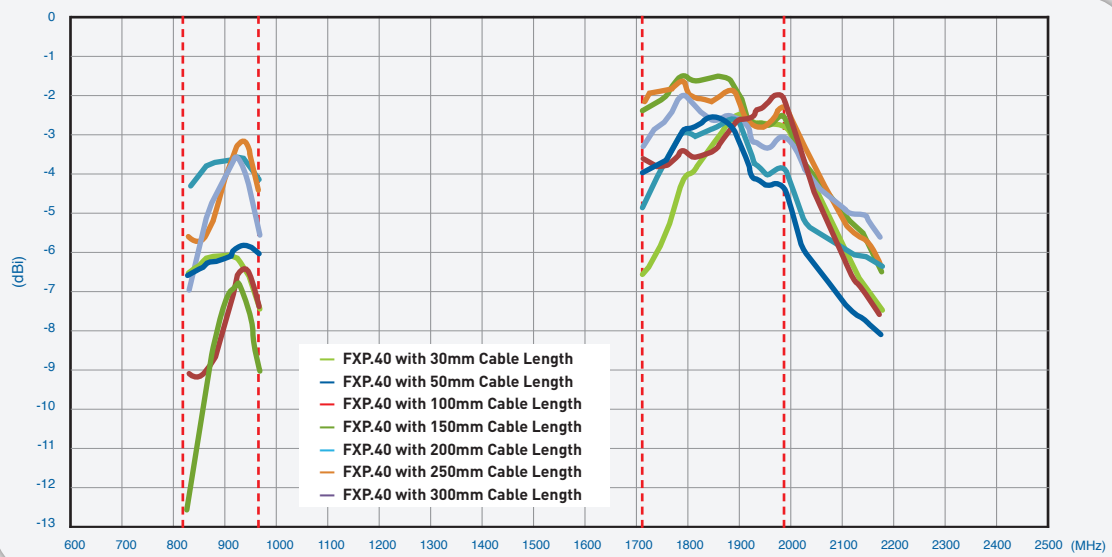
	Name	Material	Finish	Qty
1	FXP40.PCB	FPCB 0.1t	Black	1
2	1.13 Coaxial Cable	FEP	Black	1
3	IPEX MHF1	Brass	Gold	1
4	Double Sided Adhesive	3M 467	Brown Liner	1

6. Application Note

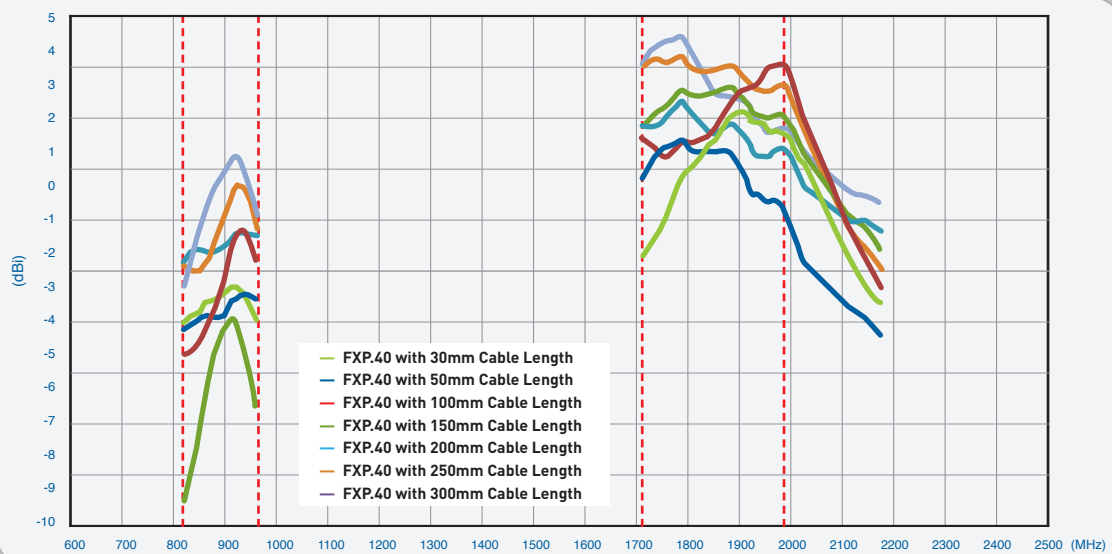
The FXP40 antenna measurement with difference cable length on plastic plate of 2 mm thickness, the performance is shown as below:



Average Gain

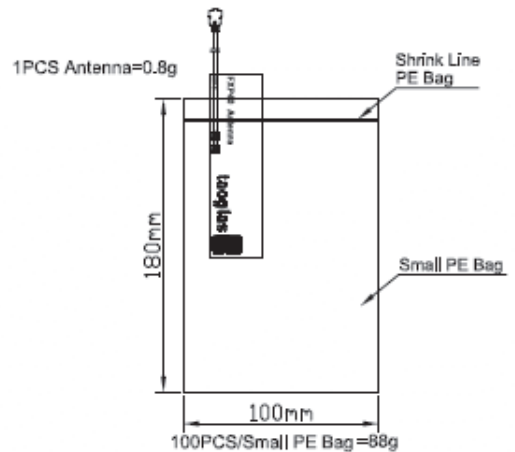


Peak Gain

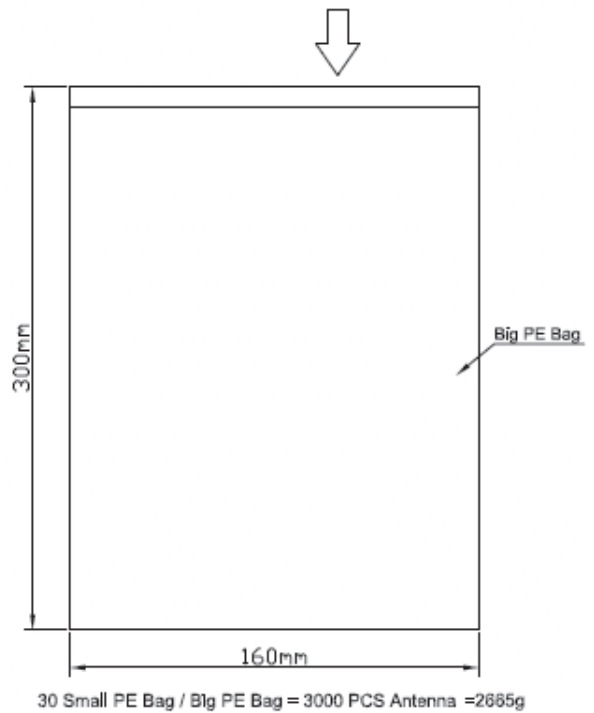


7. Packaging

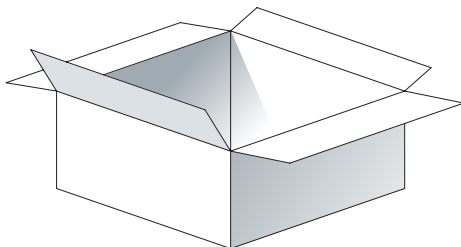
1 piece FXP40 - Weight 0.8g
100 pieces in small PE bag - Weight 81g



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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