

Shenzhen Xiangboyi Technology Co. Ltd

Antenna Specification

Customer	Shenzhen Harvilon Technology Co.,Ltd.
Project	MF836T-MX
Project NO	XBY220349

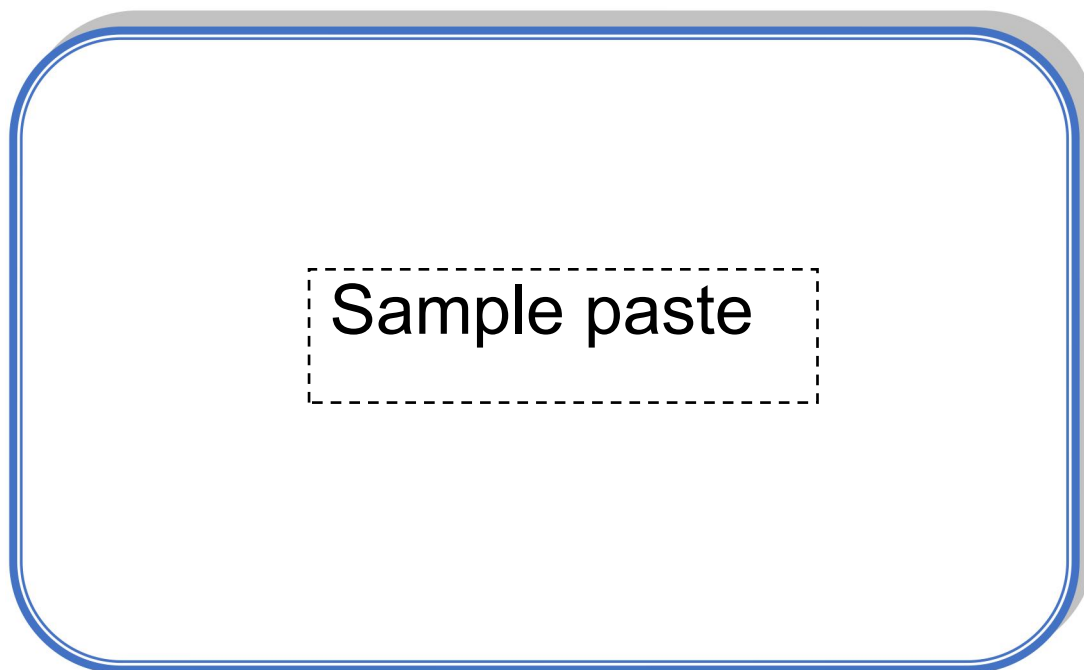
Shenzhen Xiangboyi Technology Co. Ltd

Date: 2023/05/09

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R & D Center: 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

Production Base: 5 / F, building B, Huazhi chuangu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.



Customer confirmation			
Engineer	PM	Quality	Approval

Supplier confirmation			
ME	RF	Examine	Approval

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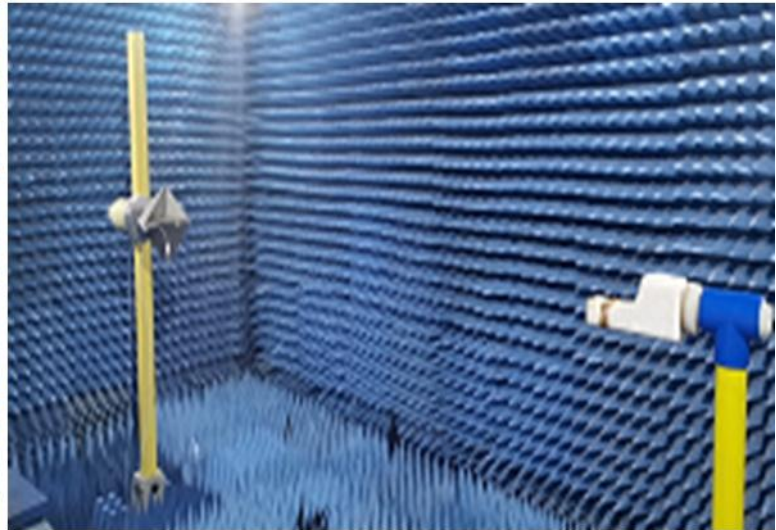
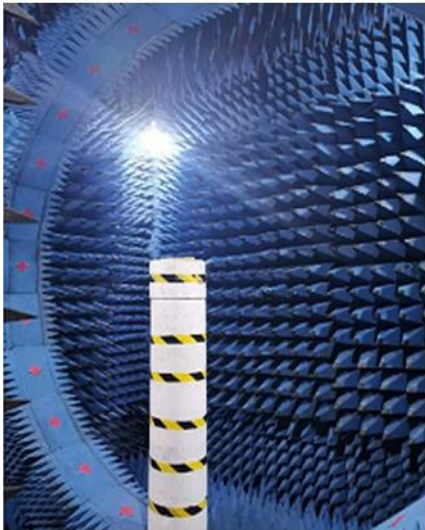
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1 Test System and Equipment

	Test items	equipment
1: S parameter	1. Return loss 2. VSWR	Network analyzer: A338/A333/HP8753D
2: Active test	1. TRP 2. TIS	Comprehensive test instrument: Agilent 8960/ CMW500
3: Radiation mode and gain	1. Radiation mode 2. Gain	1. Shielding room: 7x4x3 m (ETS-3D) 2. Network analyzer: HP 8753D



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2 Product Description

Technical requirements	Technical index	Remarks
Band	LTE:B2/B4/B5/B7/B28/B66 WIFI:2.4G	
Range Of Frequency	LTE:698-824Mhz;1710-2690Mhz WIFI: 2400-2500Mhz	
VSWR	698-824Mhz<3.0 1710-2690Mhz<3.0 2400-2500Mhz<3.0	Center Frequency
Impedance	50 Ω	
Polarization	Linear polarization	
operating temperature	-32°C / +55°C	
storage temperature	-55°C / +85°C	
Salt Fog	24h(24h alternating wet & dry)	
RoHS Compliant	yes	

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3 Device Description

The whole machine photo



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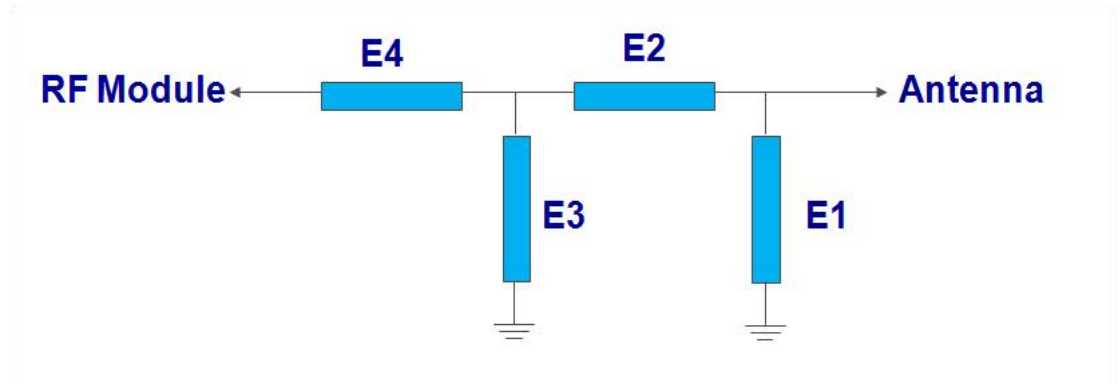
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4 Matching Circuits

The matching circuit is not changed.



Element	Value	Vender
E1(0201)	NA	
E2(0201)	0Ω	
E3(0201)	NA	
E4(0201)	0Ω	

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5 Active Test Data

LTE BAND	LTE-B2			LTE-B4		
Channel	L	M	H	L	M	H
TRP	19.73	19.35	18.43	18.17	18.51	19.09
TIS			-94.41			-95.45

LTE BAND	LTE-B5			LTE-B7		
Channel	L	M	H	L	M	H
TRP	18.56	18.24	19.33	19.23	18.35	19.03
TIS			-92.76			-94.59

LTE BAND	LTE-B28					
Channel	L	M	H			
TRP	18.63	18.56	19.12			
TIS			-92.37			

WCDMA BAND	WCDMA-B1			WCDMA-B2		
Channel	L	M	H	L	M	H
TRP	19.73	19.35	18.43	18.17	18.51	19.09
TIS			-94.41			-95.45

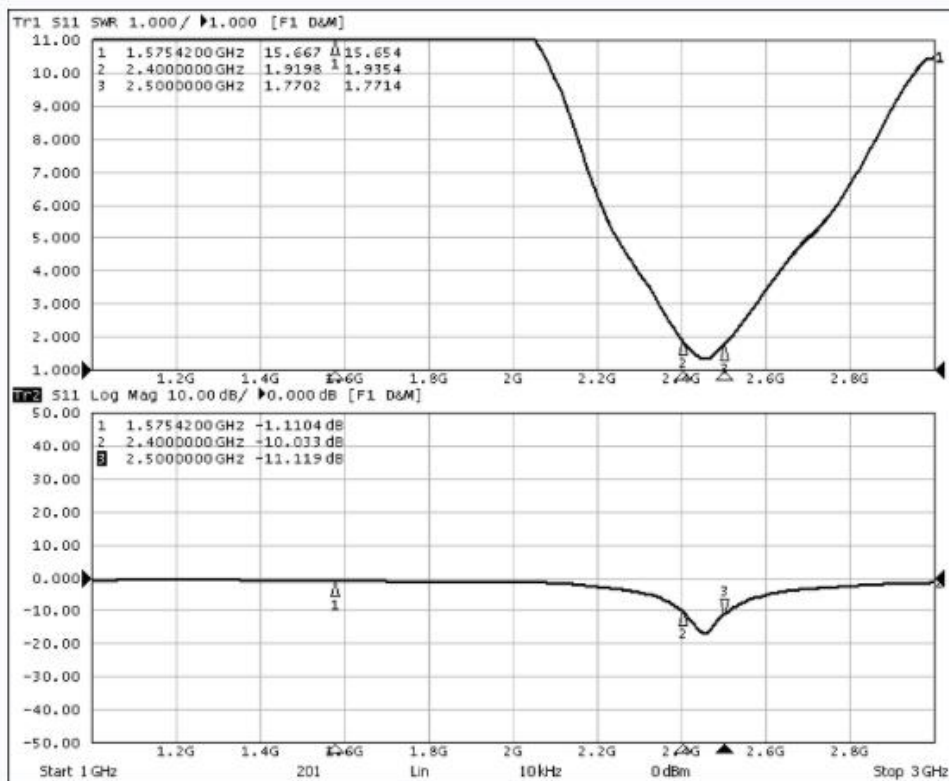
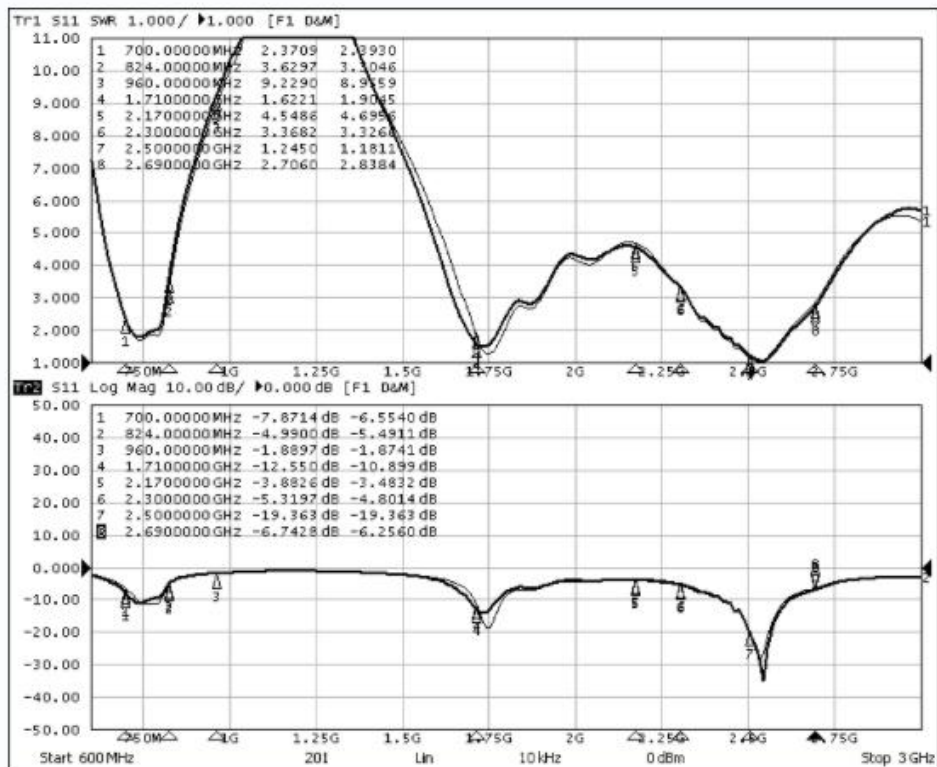
WCDMA BAND	WCDMA-B5			WCDMA-B8		
Channel	L	M	H	L	M	H
TRP	18.56	18.24	19.33	19.23	18.35	19.03
TIS			-92.76			-94.59

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Freq (MHz)	Effi (%)	Gain (dBi)
700	20.08	-2.17
750	31.33	-1.3
800	35.22	-0.65
850	30.22	-1.23
900	24.23	-1.87
1700	50.27	1.32
1800	54.76	2.15
1900	56.8	2.56
2000	52.86	2.43
2100	60.41	2.65
2200	55.6	2.13
2300	38.05	0.62
2400	39.67	0.69
2500	39.53	0.55
2600	50.13	1.45
2700	36.43	0.5

Freq (MHz)	Effi (%)	Gain (dBi)
2400	26.56	1.22
2450	31.13	1.8
2490	31.19	1.56

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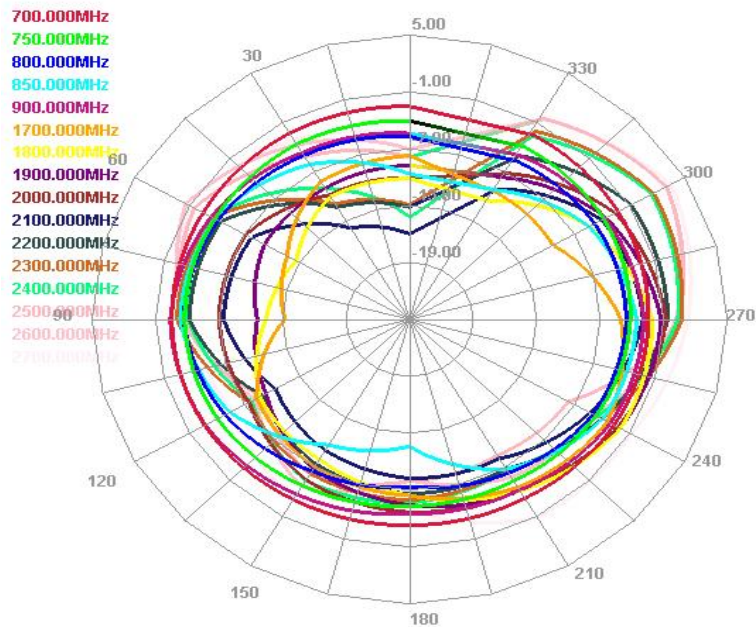
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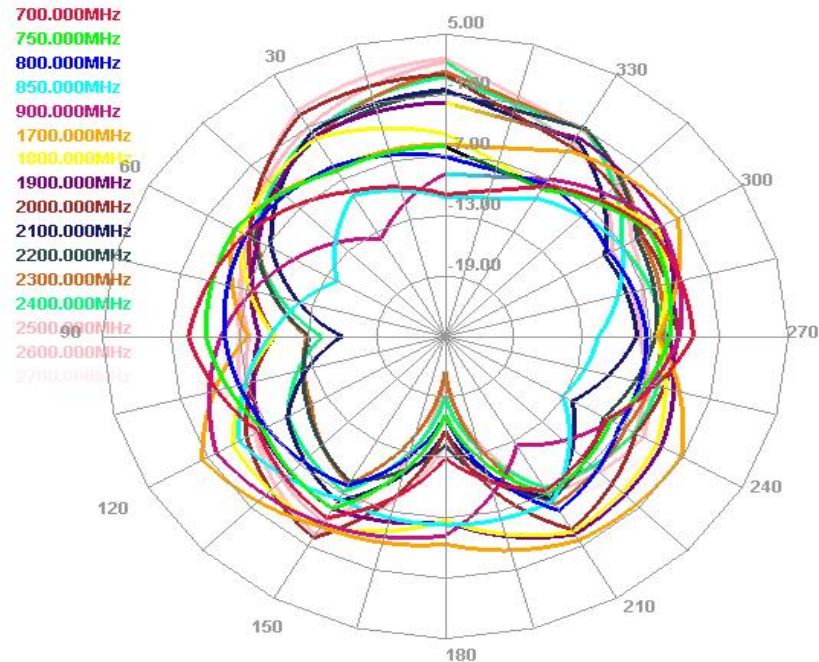
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LTE directional diagram; directivity diagram

Horizontal



E1 Face



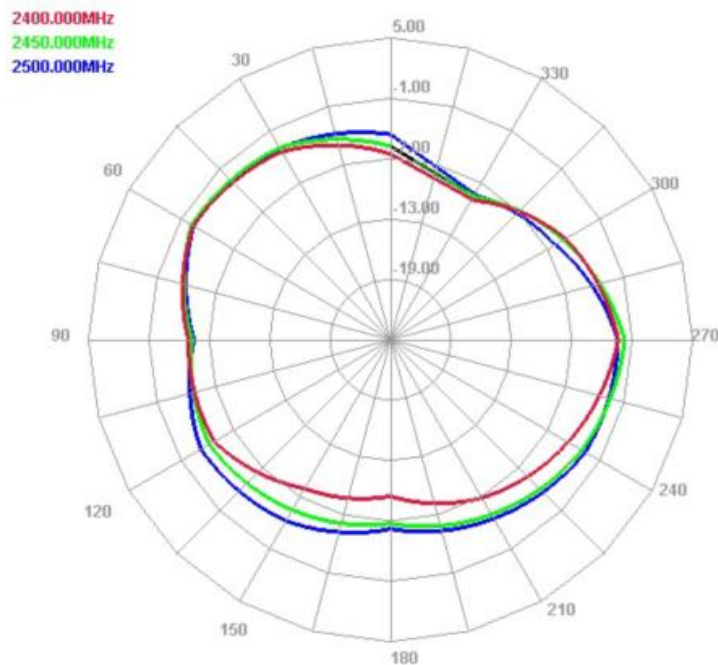
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Horizontal

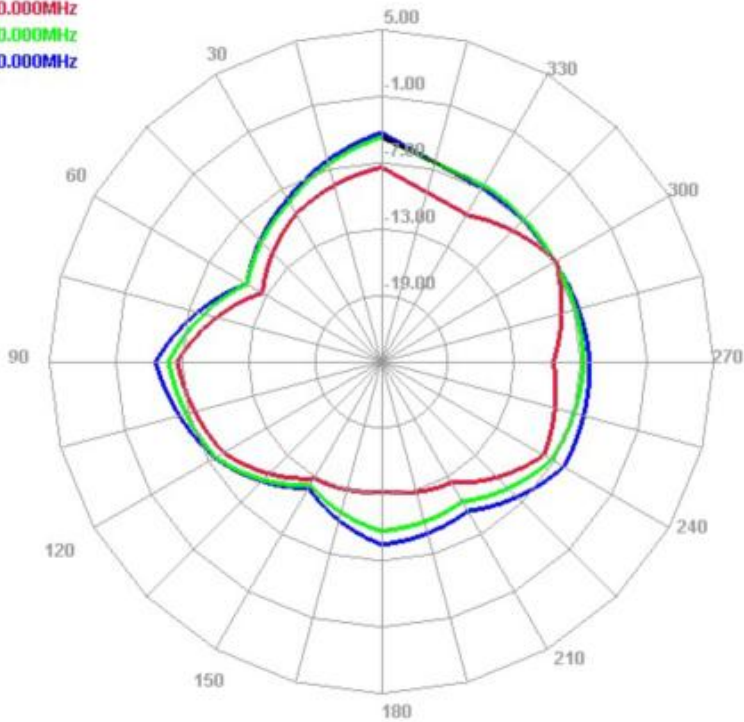


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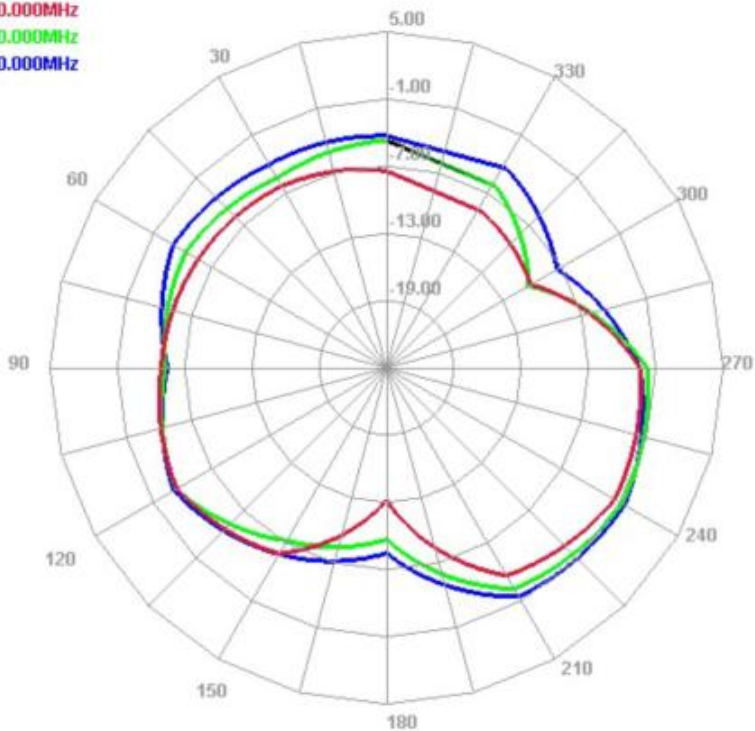
E1 Face

2400.000MHz
2450.000MHz
2500.000MHz



E2 Face

2400.000MHz
2450.000MHz
2500.000MHz



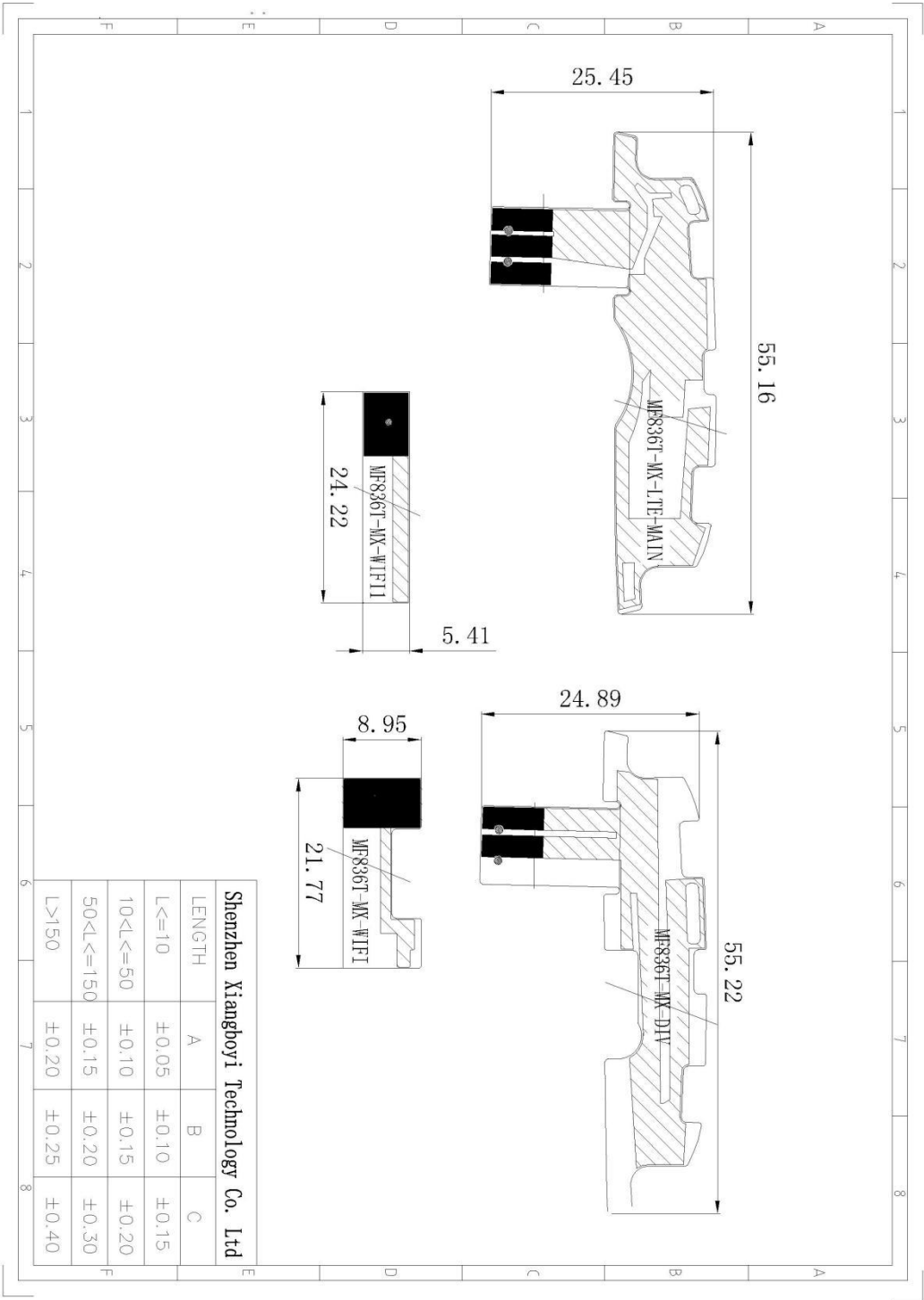
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6 EngineeringDrawing



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