



Tengxiang Technology.Inc

东莞市腾祥电子有限公司

Product Number:AN2457-33LBC03RS-B

Product Name: Antenna

Specification For Approval

Date: 2025.6.30

Version: 1.0

客户名称

Customer:

客户料号

Customer P/N:

腾祥料号

TX P/N:

AN2457-33LBC03RS-B

规格描述

Description :

2.4G/5G/6G 黑色天线 SMA 公头母针

Tengxiang Checked By: 腾祥审核		Customer Approved By: 客户审核	
DRAWN 制作	路婷	TESTED BY 检测	
CHECKED BY 审核	胡超	CHECKED BY 审核	
Q.C.DEPT. 品管	周志红	Q.C.DEPT. 品管	
APPROVED BY 核准	韦佳	APPROVEDBY 核准	



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Revision History (变更履历)

Revision	Date	Change Notification	Description
1.0	2025.6.30	初版	

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1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency 频率	2400-2500 MHz/5150-5800 MHz/6000-7125MHz
S.W.R. 驻波比	<= 2.5 /<= 2.5 /<= 2.5
Antenna Gain 增益	3.85dBi /4.50dBi /5.36dBi
Polarization 极化方式	Linear
Impedance 阻抗	50 ohm Nominal
B. Material & Mechanical Characteristics	
Material of Plastic 塑胶材质	ABS/PC+PBT/POM
Cable Type 线材规格	RG178
Connector Type 连接器规格	RP SMA PLUG
C. Environmental	
Storage Temperature 存储温度	- 35 °C ~ + 65 °C
Operation Temperature 工作温度	- 35 °C ~ + 65 °C

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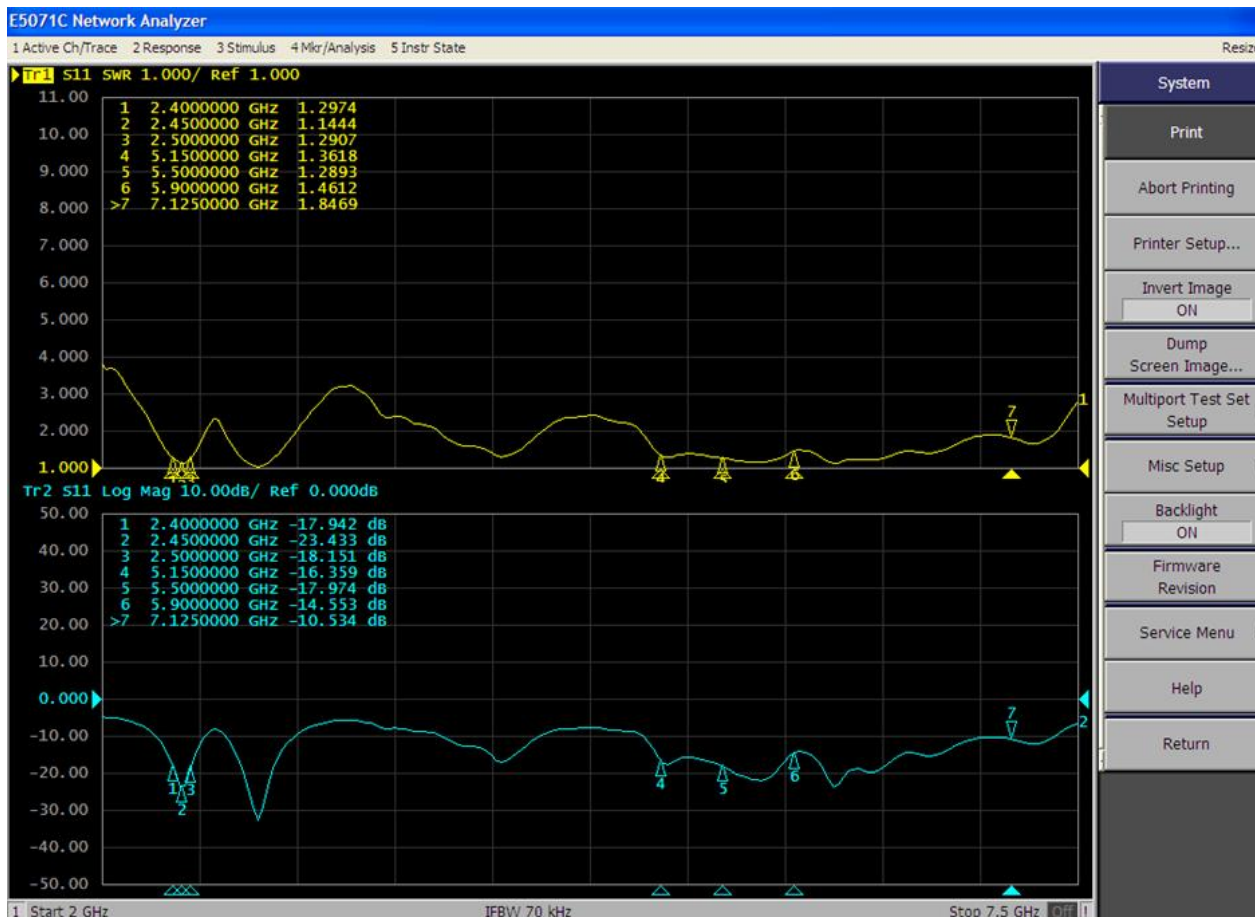
2. Characteristics and Reliability Test

Test Items 测试项目		Test Condition and Procedure 测试方法	Requirements 要求	Result 结果
1	V.S.W.R. 电压驻波比	Set DUT on Network Analyzer; make individual calibration to test 设置网络分析仪参数进行测试	Directive DUT specification 符合待测物规范	PASS
2	Insertion Loss 插入损失	Set DUT on Network Analyzer; make individual calibration to test 设置网络分析仪参数进行测试	Directive DUT specification 符合待测物规范	PASS
3	Antenna Gain 天线增益	Set DUT on Antenna Chamber; make individual calibration to test 设置天线暗室参数进行测试	Directive DUT specification 符合待测物规范	PASS
4	Solderability 可焊性	GB / T2423.28-2005 Temp: 260±5° C; Duration: 5 seconds 温度 260±5° C; 持续 5 秒	Tin evenly on full 上锡均匀饱满	PASS
5	Pull Test 拉力	Holding with individual specification; force applied to axis of terminal .单独定义产品端子拉力	1. Directive DUT specification 2. Frequency Tol. ≤5% 符合待测物规范; 频率偏移 ≤5%	PASS
6	Dimension 尺寸	Inspection of dimension, color, material, package, surface process. 检查尺寸, 颜色, 材料, 包装, 表面处理	Directive DUT specification 符合待测物规范	PASS
7	Salt Spray 盐雾	GB / T 2423.17-2008 Temp: 35°C; RH: ≥ 95%; NaCl solution: ≥ 5%; Time: 24H 温度 35°C; 湿度 ≥95%; 盐水浓度 ≥5%; 测试 24H	1. No Visual Damage 2. Frequency Tol. ≤5% 无明显外观不良; 频率偏移 ≤5%	PASS
8	Temperature and Humidity Chamber 恒温恒湿	GB / T 2423.3-2006 Temp: 65°C / 12 H; -30°C / 12H RH: ≥ 90%; Time: 24H 温度 65°C 测试 12H 转 -30°C 测试 12H; 湿度 ≥ 90%; 时间 24H	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. ≤5% 恢复 2H 后, 无明显外观不良; 频率偏移 ≤5%	PASS
9	Aging test 老化	GB / T 2423.2 - 2008 Temp: 65°C; Time: 24 hours 温度 65° C, 测试 24H	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. ≤5% 无明显外观不良; 频率偏移 ≤5%	PASS
10	RoHS	With Reference to IEC 62321:2008 with flow chart 参考 IEC 62321 测试流程	Directive RoHS 2015/863/EU 符合 RoHS 2015/863/EU 标准	PASS

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3. Antenna - S Parameter Test Data



4. Antenna - Radiation Pattern Test Data

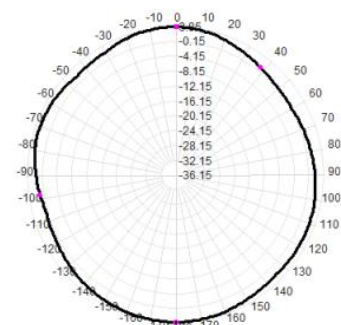
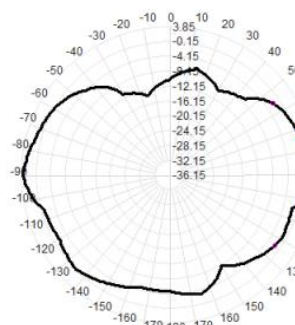
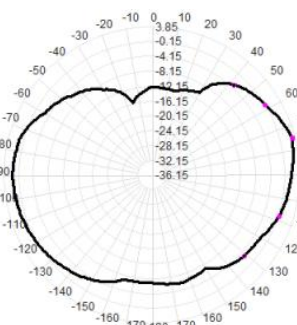
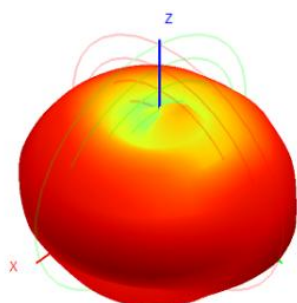
Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Frequency (MHz)	2400.0	2420.0	2440.0	2460.0	2480.0	2500.0	5150.0	5250.0	5350.0	5450.0	5550.0	5650.0	5750.0	5850.0	5900.0	6100.0	6300.0	6500.0	6700.0	6900.0	7100.0	7125.0
Gain (dBi)	3.85	3.70	3.61	3.57	3.34	3.12	4.23	2.75	2.56	2.44	2.24	3.30	4.19	4.50	4.06	2.44	3.17	5.36	4.89	3.66	2.40	2.35
Efficiency (%)	81.81	80.63	80.43	77.03	74.06	71.11	80.02	75.87	77.67	73.96	74.35	78.17	75.12	75.45	74.08	77.55	73.53	69.73	80.60	64.58	54.14	53.92
Directivity (dB)	4.73	4.63	4.56	4.70	4.64	4.60	5.20	3.95	3.66	3.75	3.53	4.37	5.43	5.72	5.36	3.54	4.51	6.92	5.83	5.55	5.07	5.03

XZ

YZ

XY

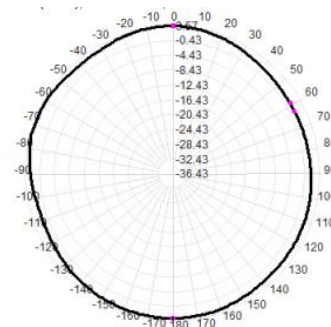
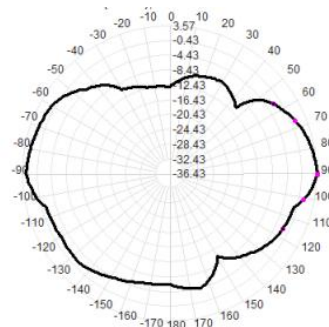
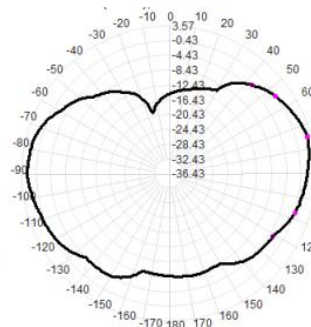
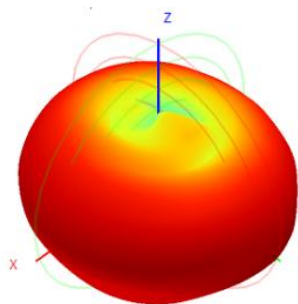
2400MHz



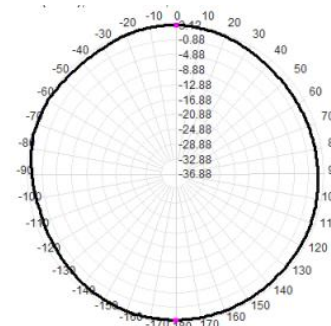
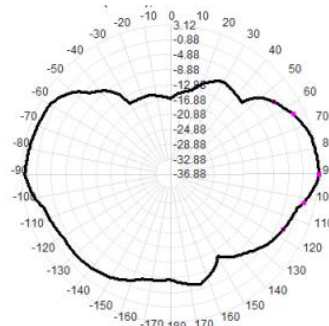
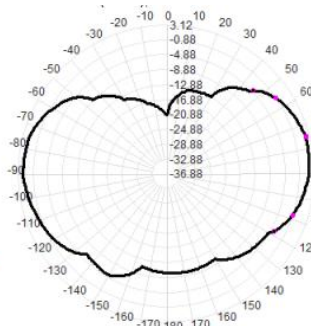
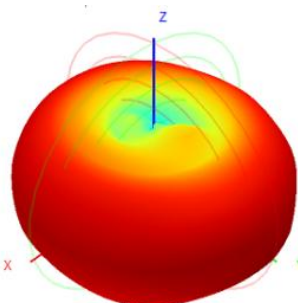
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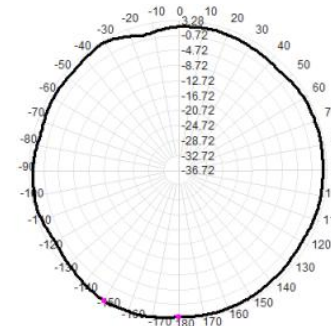
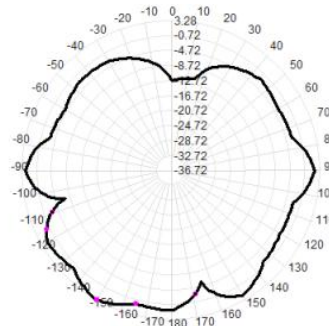
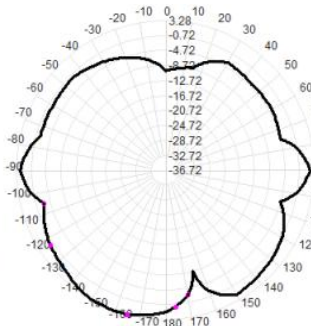
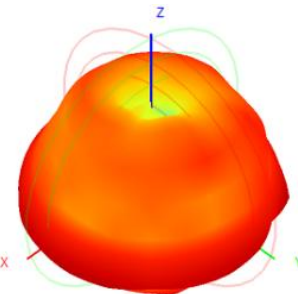
2460MHz



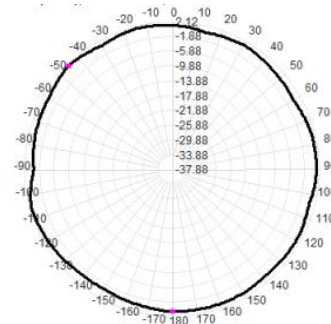
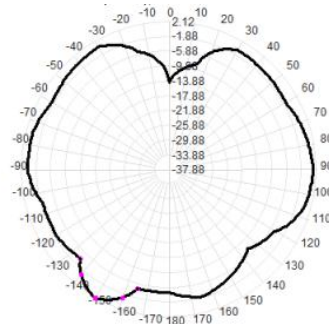
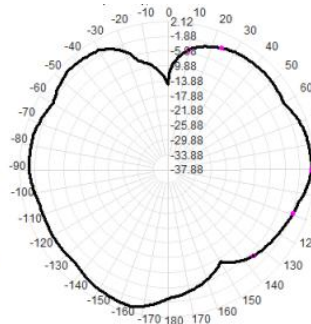
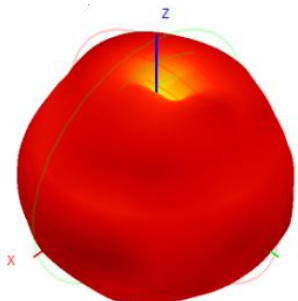
2500MHz



5150MHz



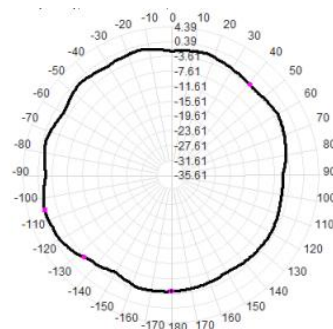
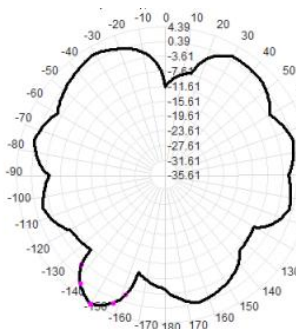
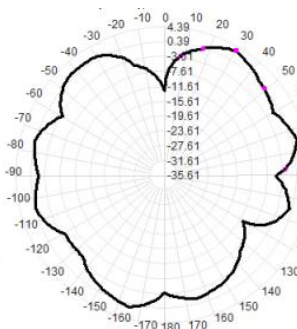
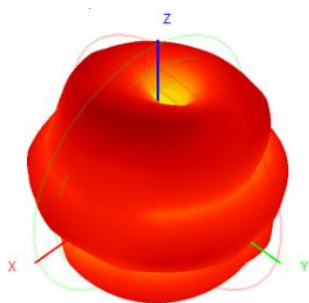
5550MHz



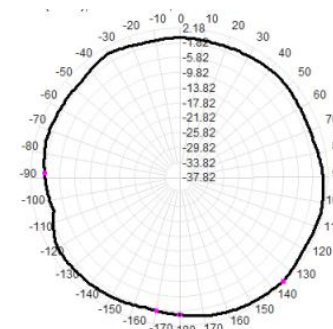
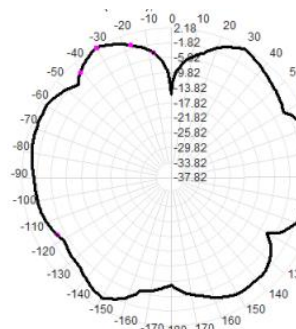
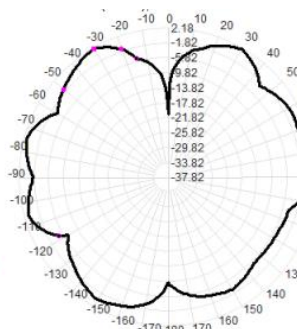
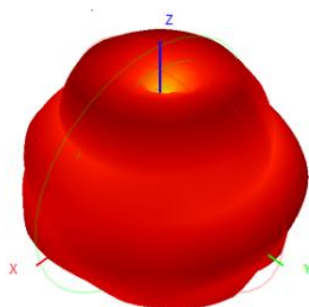
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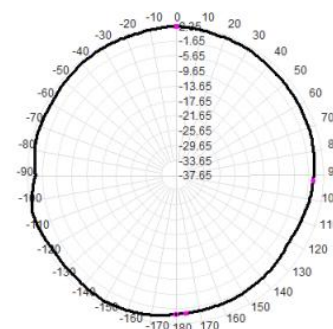
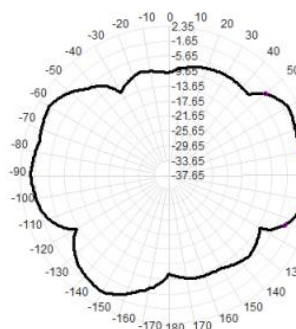
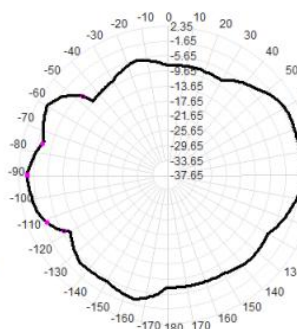
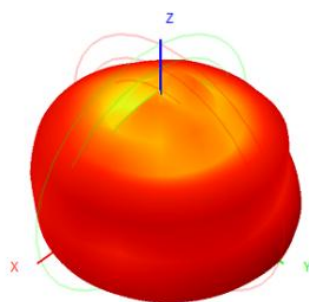
5850MHz



6100MHz

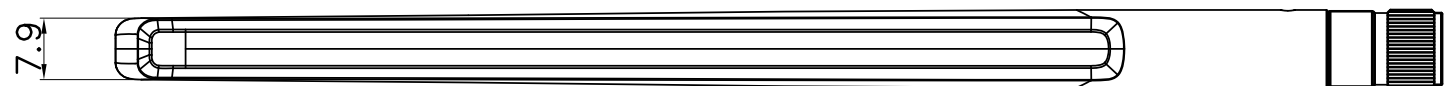


7125MHz



5. Mechanical Drawing See attached files

SIGN	DATE	DESCRIPTION	APPROVER
			
			
			



Note:

1. Mark * is important dimension; "Cpk "Identify for process control ($CpK \geq 1.33$).
2. Tolerance: Unmarked tolerance refer to the standard tolerance please.

4	AN33L-01B	本体	ABS	BLACK	1
3	AN01-1215-P-1	铆钉	POM	BLACK	2
2	AN33-02B	连接头	PC+PBT	BLACK	1
1	SMA518-N8MRAN33	RP SMA PIUG	POM	BLACK	1
No.	Part Number	Name	Material	Finish	Q'ty

 Tengxiang Electronics Co., Ltd.					
TITLE: Antenna					
PART NO.: AN2457-33LBC03RS-B				CUSTOMER P/N: /	
APP BY	CHK BY	RF BY	DES BY		Tolerance
YCX	HC	WJ	dwf	UNITS: mm	X.X ±0.5
2025.06.30	2025.06.30	2025.06.30	2025.06.30	SCALE: 1/1	X.XX ±0.2
				REVISION: A	X° ±1

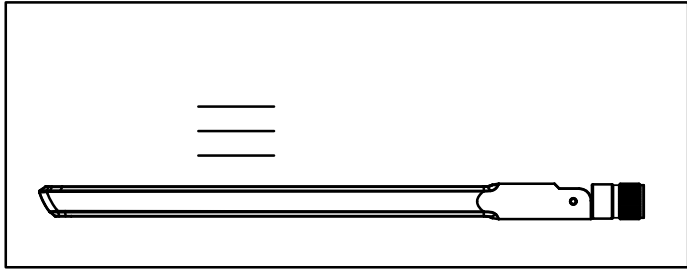
產品包裝規範

PACKING CRITERION

Date: 2025.06.30

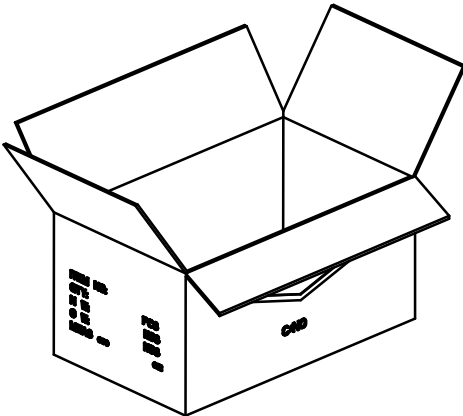
Part Number : AN2457-33LBC03RS-B	Revision : A
Name: Antenna	

1 . Enter PE bag。



50pcs/ PE bag

2.PACKING 。



1000pcs/Carton

3. SEALING 。

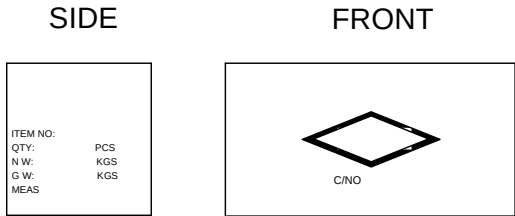
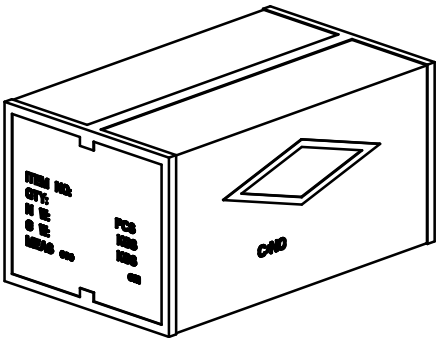


Diagram illustrating the sealed box and its labeling requirements.

SIDE

ITEM NO: _____ PCS
QTY: _____ KGS
N.W: _____ KGS
G.W: _____
MEAS: _____

FRONT

C/NO

APPROVED BY : YCX CHECKED BY : HC DESIGNED BY : DWF