

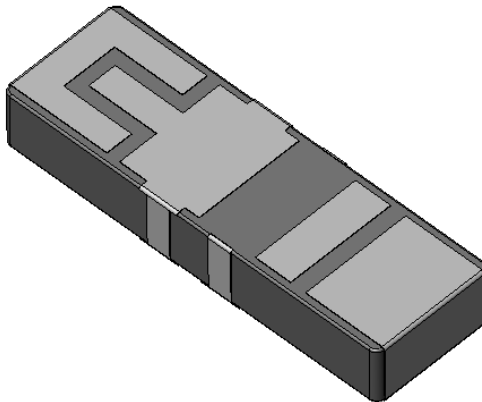
Description: Dual Feed GNSS/2.4GHz Ceramic

Series: Ceramic

PART NUMBER: W3064C

Features:

- Omni directional radiation
- Low profile
- Compact size L x W x H (10 x 3.2 x 1.5 mm)
- Low weight (240 mg)
- Lead free materials
- Fully SMD compatible
- Lead free soldering compatible
- Tape and reel packing
- RoHS Compliant Product
- Flexible mounting orientation due to symmetrical pad layout



Applications:

- GNSS L1 Band
- GPS L1 band (1.575 GHz)
- Bluetooth, WLAN, WiFi (2.4GHz – 2.483GHz)

All dimensions are in mm

Issue: 2049

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

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Description: Dual Feed GNSS/2.4GHz Ceramic

Series: Ceramic

PART NUMBER: W3064C

ELECTRICAL SPECIFICATIONS

Frequency	1575.42+/-1MHz 2400-2483.5MHz
Nominal Impedance	50 Ω
VSWR	2:1
Port-to-Port Isolation	-20dB
Radiation Pattern	Omni
Peak Gain	-1dBi @1575.42MHz -0.5dBi @2400-2483.5MHz
Efficiency	70% @1575.42MHz 70% @2400-2483.5MHz
Polarization	Linear
Power Withstanding	5W

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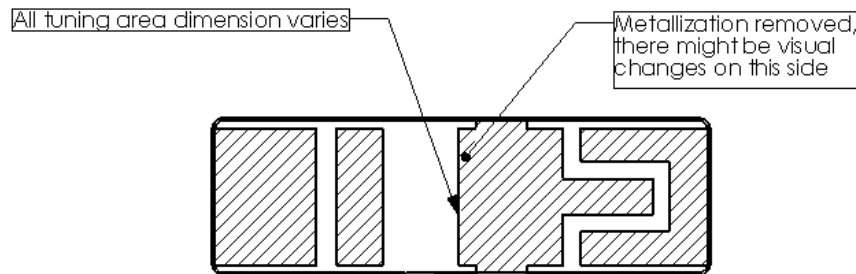
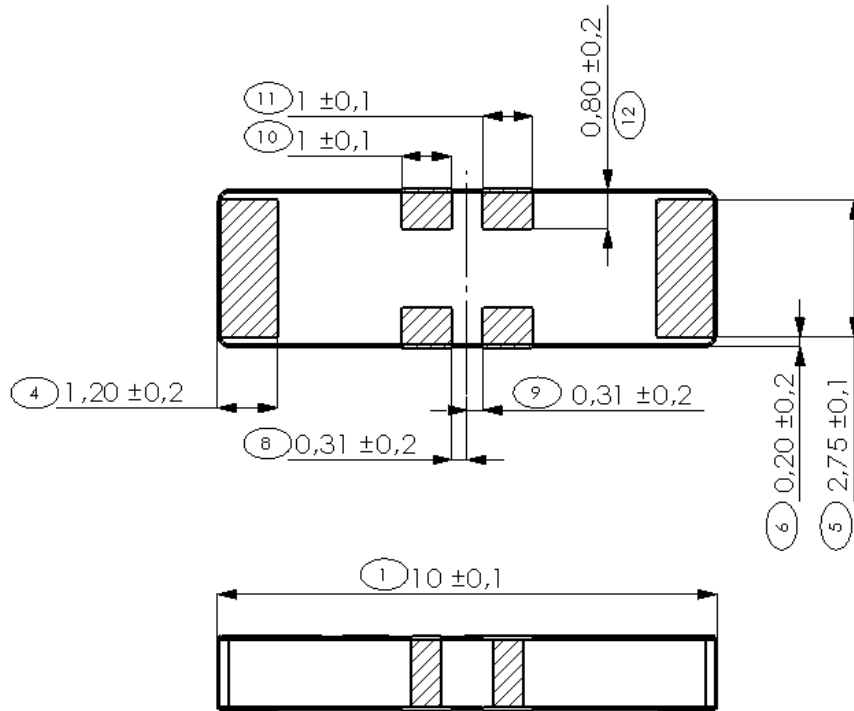
Description: Dual Feed GNSS/2.4GHz Ceramic**Series:** Ceramic**PART NUMBER:** W3064C**MECHANICAL SPECIFICATIONS**

Overall size	10*3.2*1.5 mm
Weight	240 mg

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40~+85 ° C
Storage Temperature	-40~+85 ° C
RoHS Compliant	Yes
MSL level	1

MECHANICAL DRAWING



No.	Terminal Name	Terminal Dimensions
1	Feed BT / GND	1.20 x 2.75 mm
2	Feed GNSS / GND	1.20 x 2.75 mm

Description: Dual Feed GNSS/2.4GHz Ceramic

Series: Ceramic

PART NUMBER: W3064C

MECHANICAL DRAWING

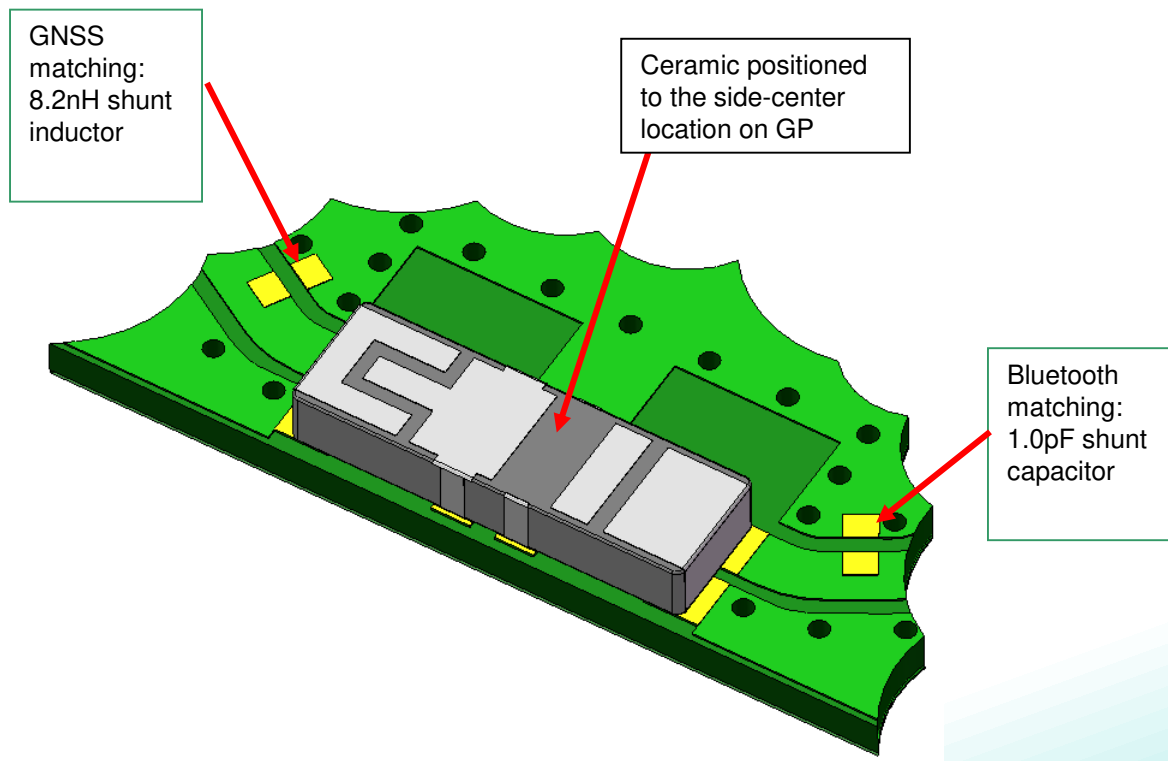
Test Setup for Electrical Measurements

Recommended test board- layout for electrical characteristic measurement

- Test board size 96 mm x 45 mm, PWB ground removal area 10.8 mm x 6.4 mm.
- GNSS antenna matching is done with 8.2nH shunt inductor, for Bluetooth a 1.0pF shunt capacitor is used.

3D- view of Test Setup

- Test Setup: Antenna Positioned to the side-center location of test PCB 96mm long edge



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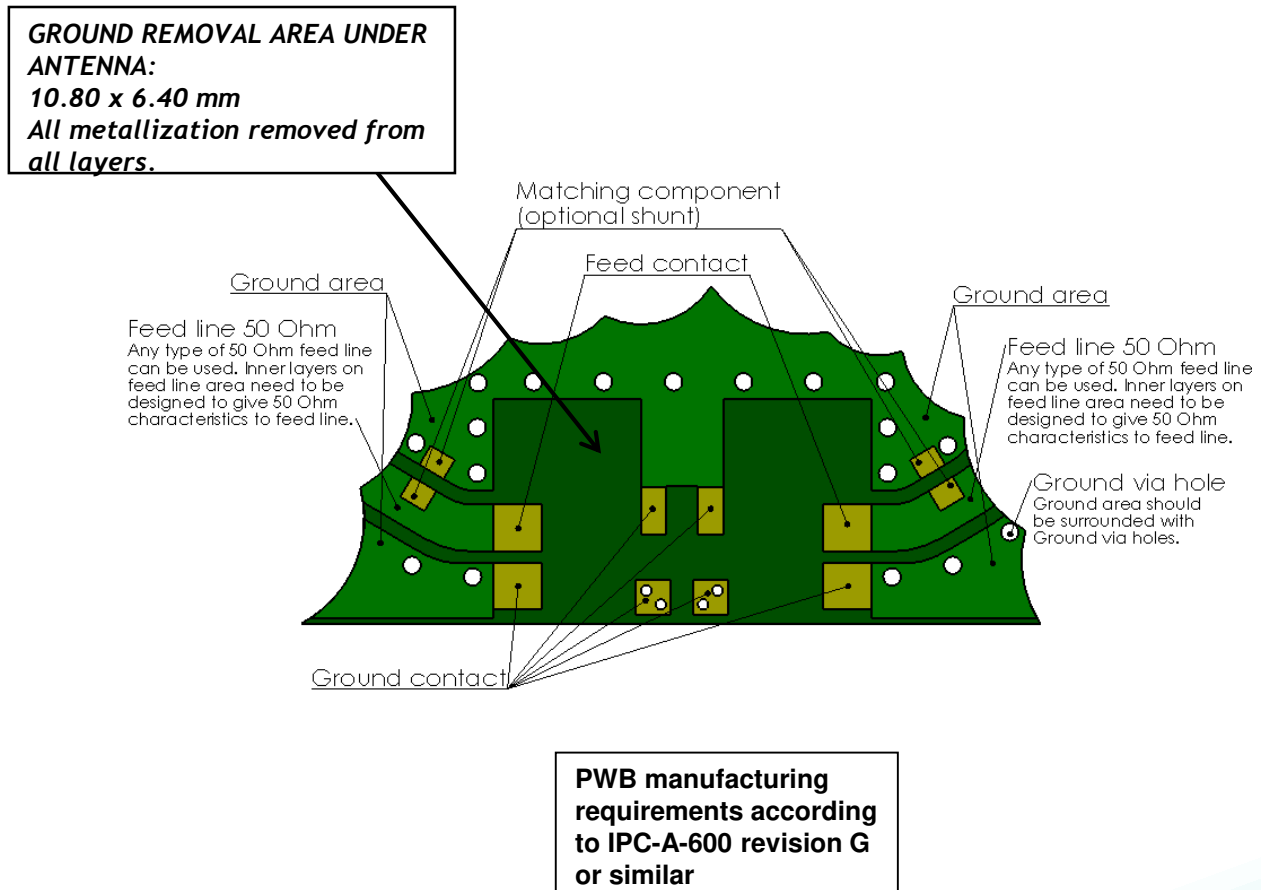
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MECHANICAL DRAWING

W3064C Layout information

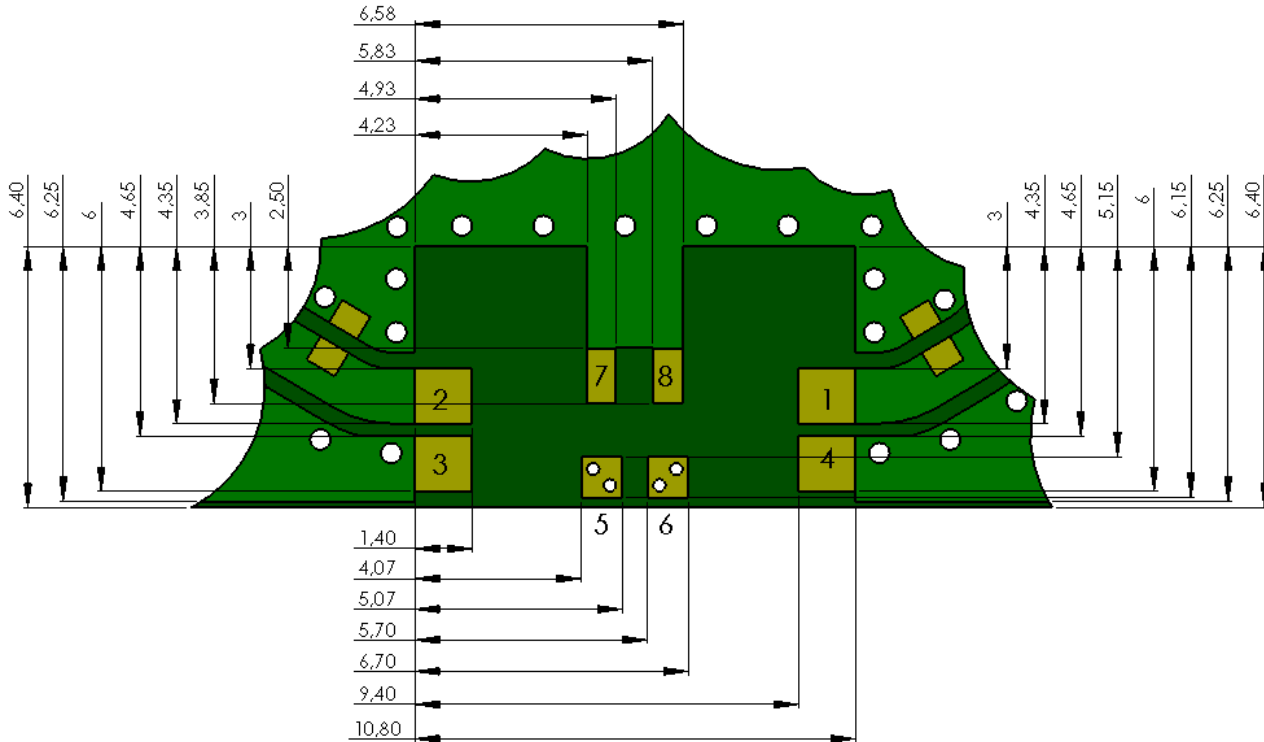
Ground Cleared Under Antenna. Ground removal area under antenna 10.8 mm x 6.4 mm.

Terminal Configuration



MECHANICAL DRAWING

Recommended Antenna Pad Dimensions on PWB Layout (Top surface)



PWB features		
No.	Terminal Name	Terminal Dimensions
1	Feed BT/GNSS*	1.35 x 1.40 mm
2	Feed GNSS/BT*	1.35 x 1.40 mm
3	GND	1.35 x 1.40 mm
4	GND	1.35 x 1.40 mm
5	GND	1.00 x 1.00 mm
6	GND	1.00 x 1.00 mm
7	GND	1.35 x 0.70 mm
8	GND	1.35 x 0.75 mm

***Antenna orientation can be rotated freely by 180 degrees because of the symmetrical pad layout.**

Description: Dual Feed GNSS/2.4GHz Ceramic

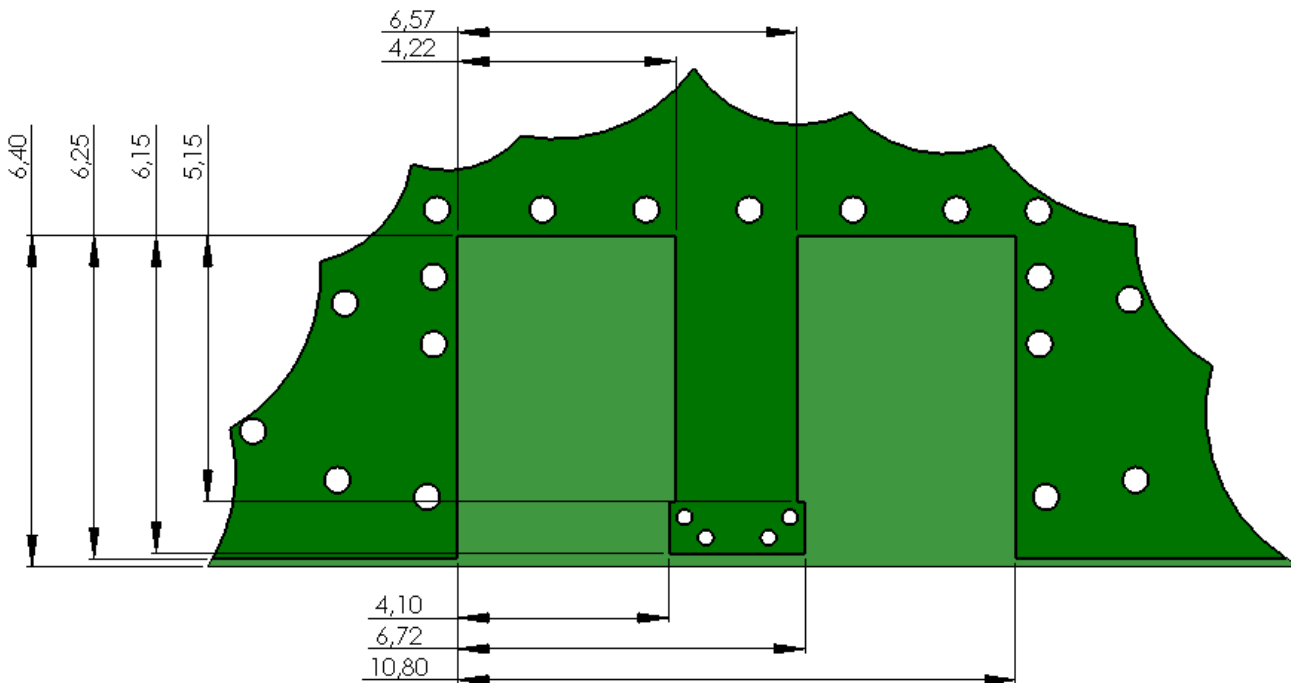
Series: Ceramic

PART NUMBER: W3064C

MECHANICAL DRAWING

Recommended Antenna Dimensions on PWB Layout (Bottom surface)

Ground Cleared Under Antenna. Ground removal area under antenna 10.8 mm x 6.4 mm.

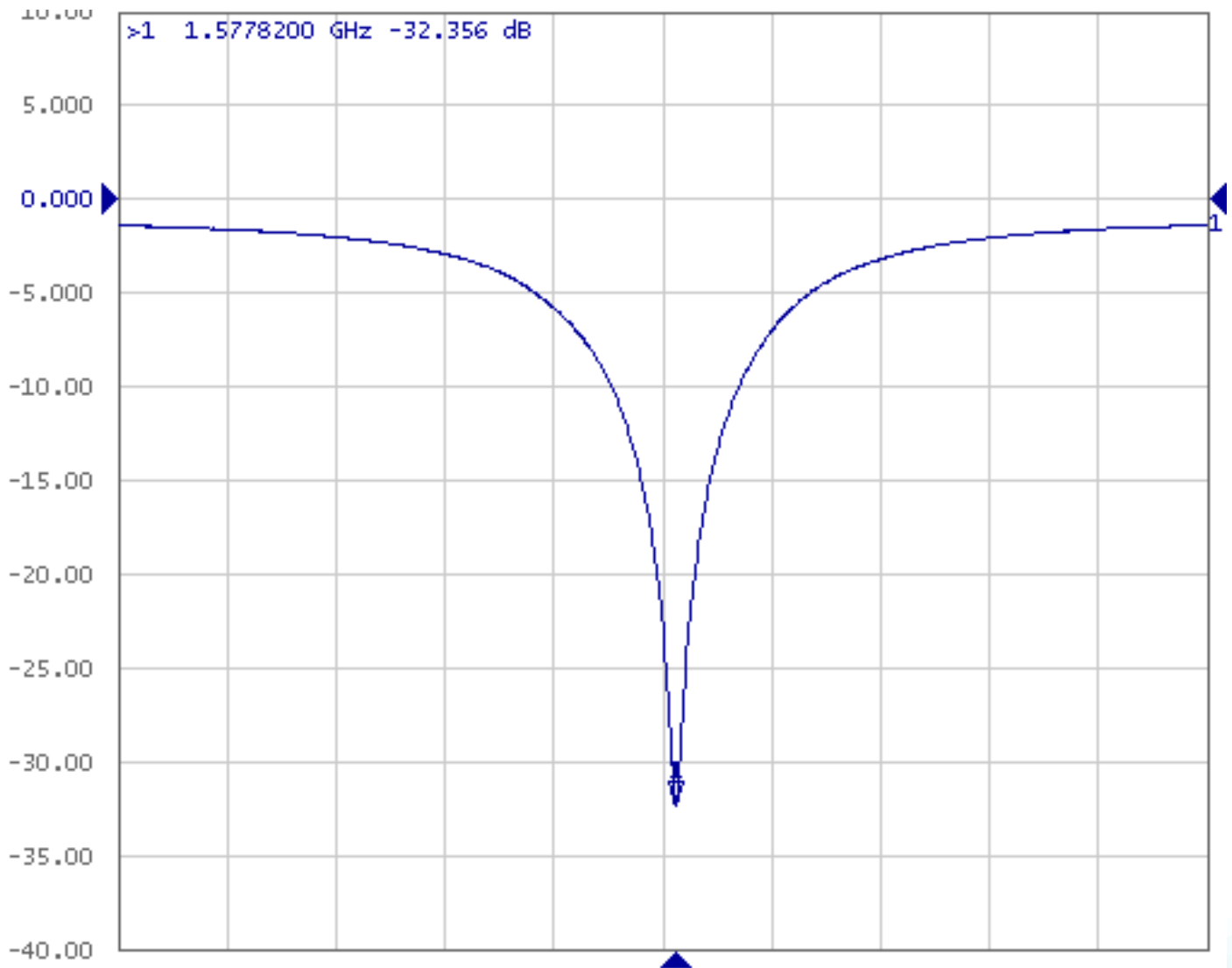


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Description: Dual Feed GNSS/2.4GHz Ceramic**Series:** Ceramic**PART NUMBER:** W3064C**CHARTS****GPS Return Loss**

Issue: 2049

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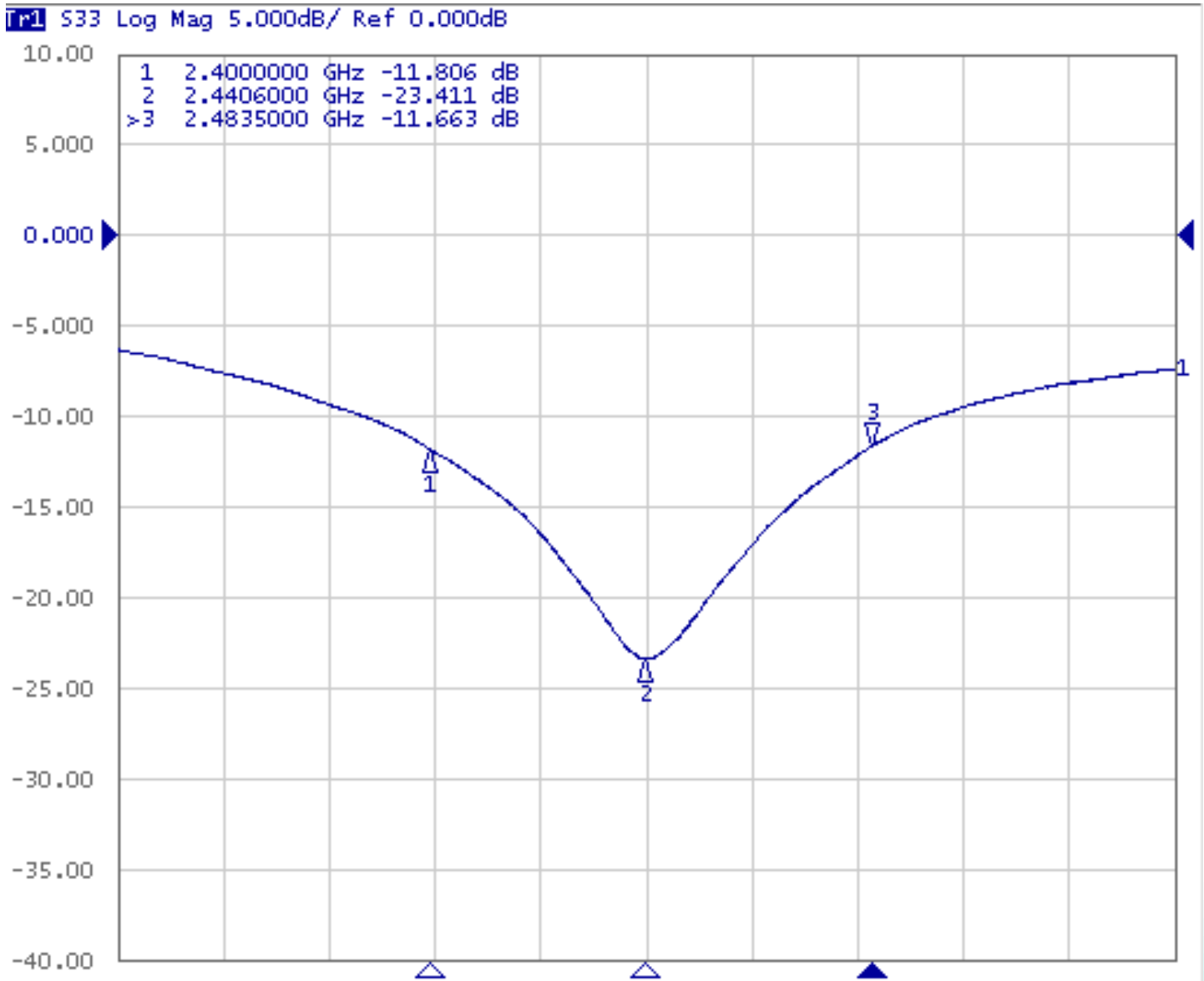
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Series: Ceramic

PART NUMBER: W3064C

CHARTS

BT Return Loss



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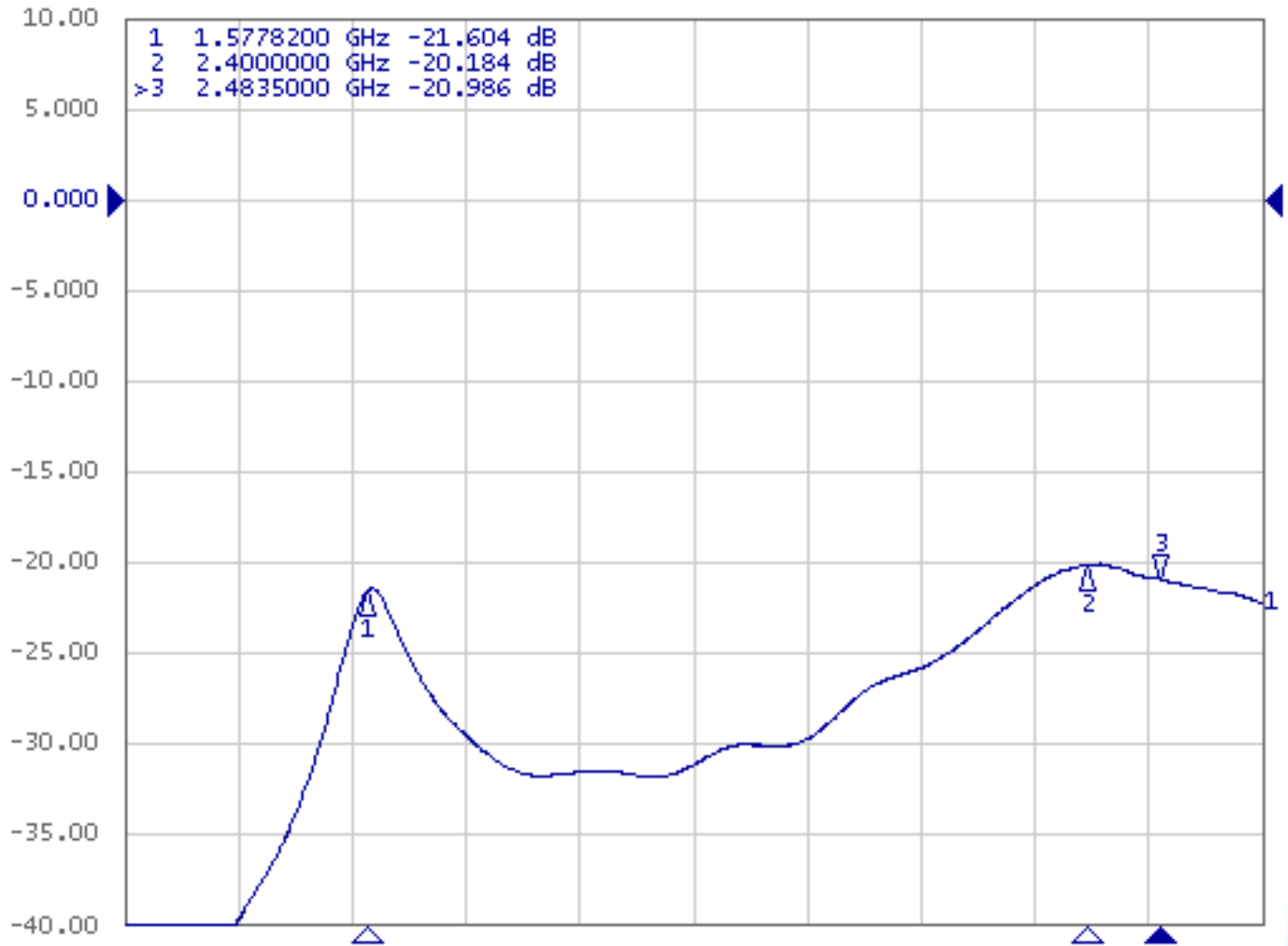
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PART NUMBER: W3064C

CHARTS

Isolation Between GPS And BT

▶ S34 Log Mag 5.000dB/ Ref 0.000dB



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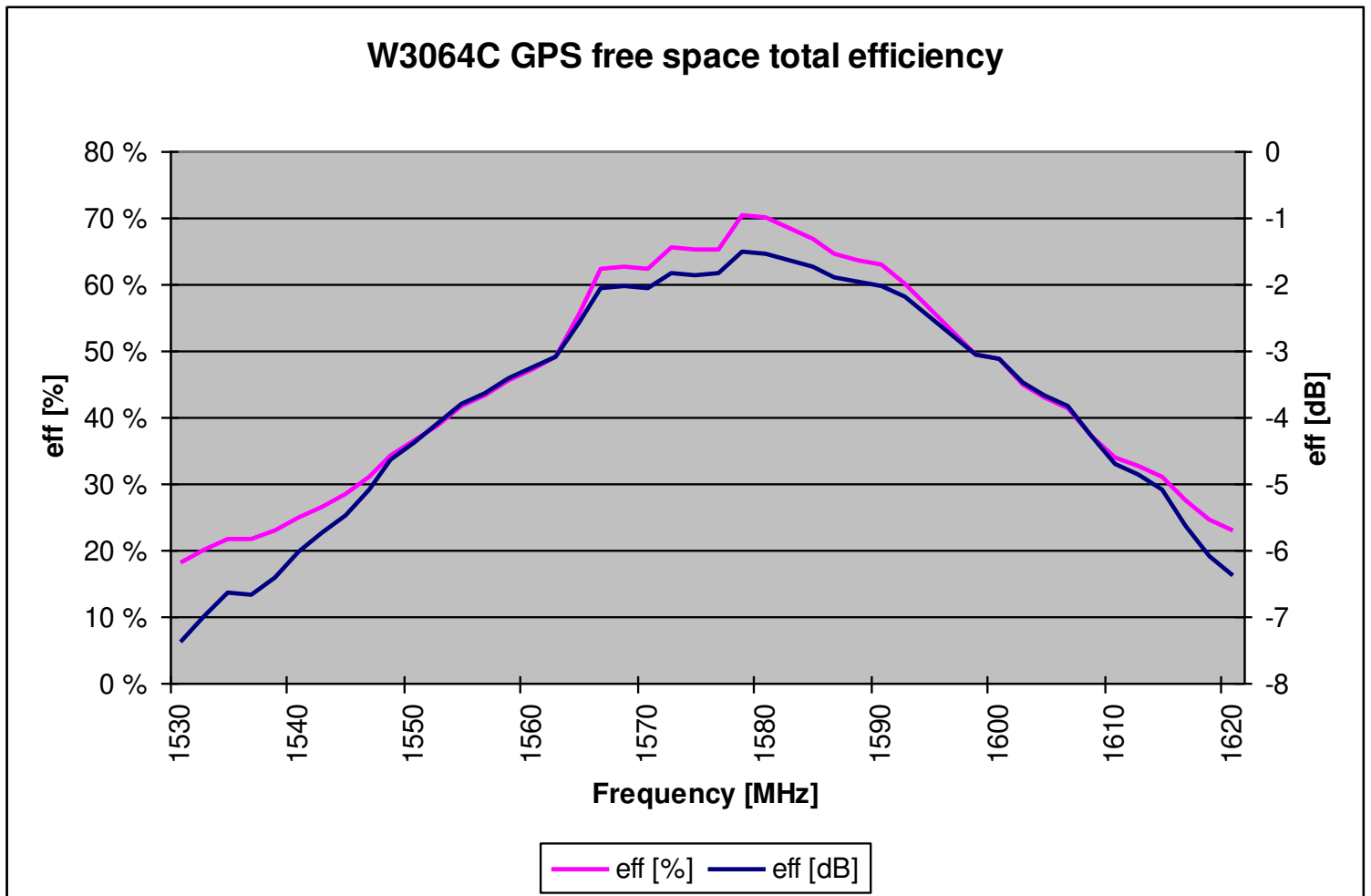
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CHARTS

Efficiency



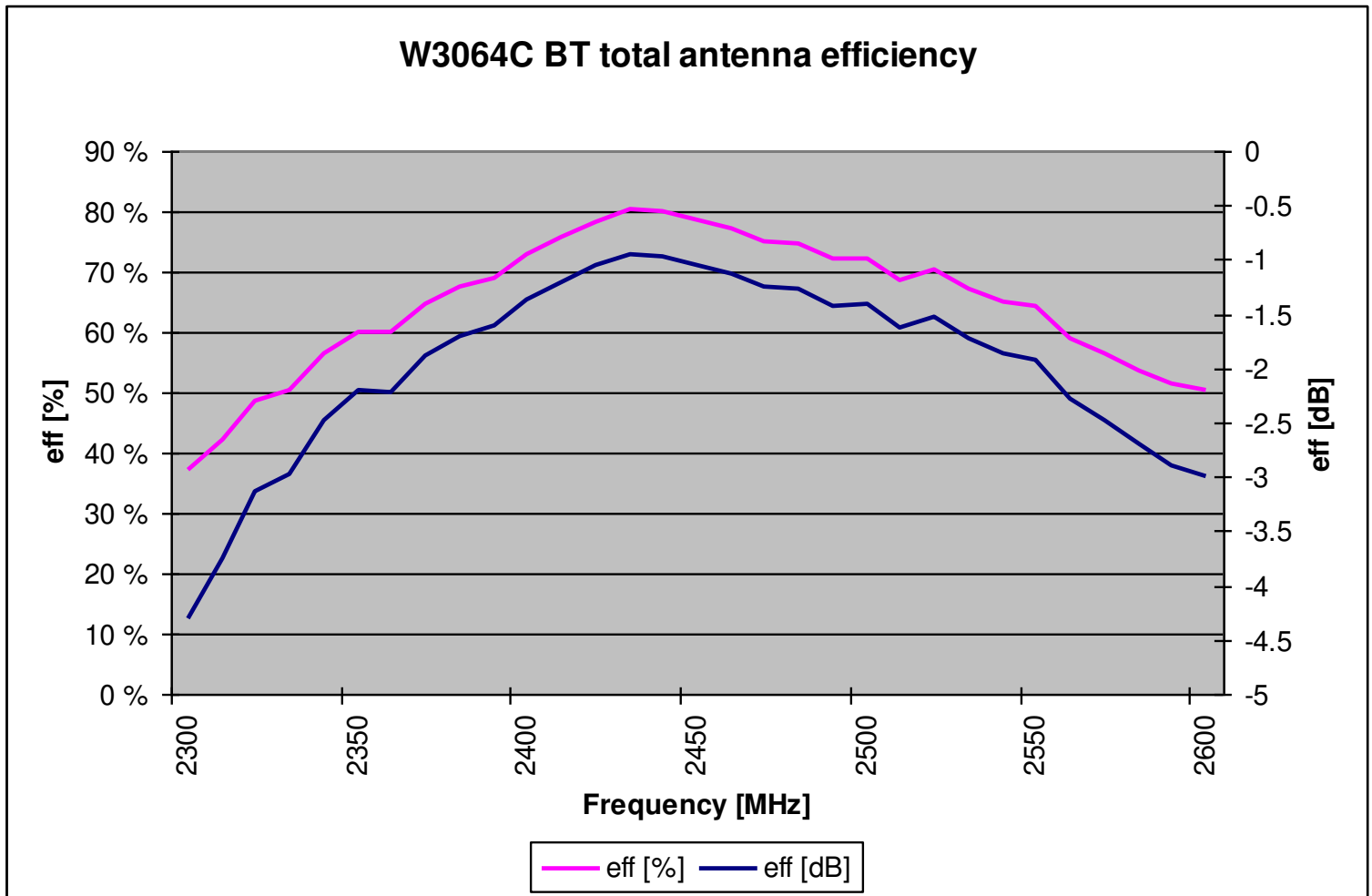
Description: Dual Feed GNSS/2.4GHz Ceramic

Series: Ceramic

PART NUMBER: W3064C

CHARTS

Efficiency



Description: Dual Feed GNSS/2.4GHz Ceramic

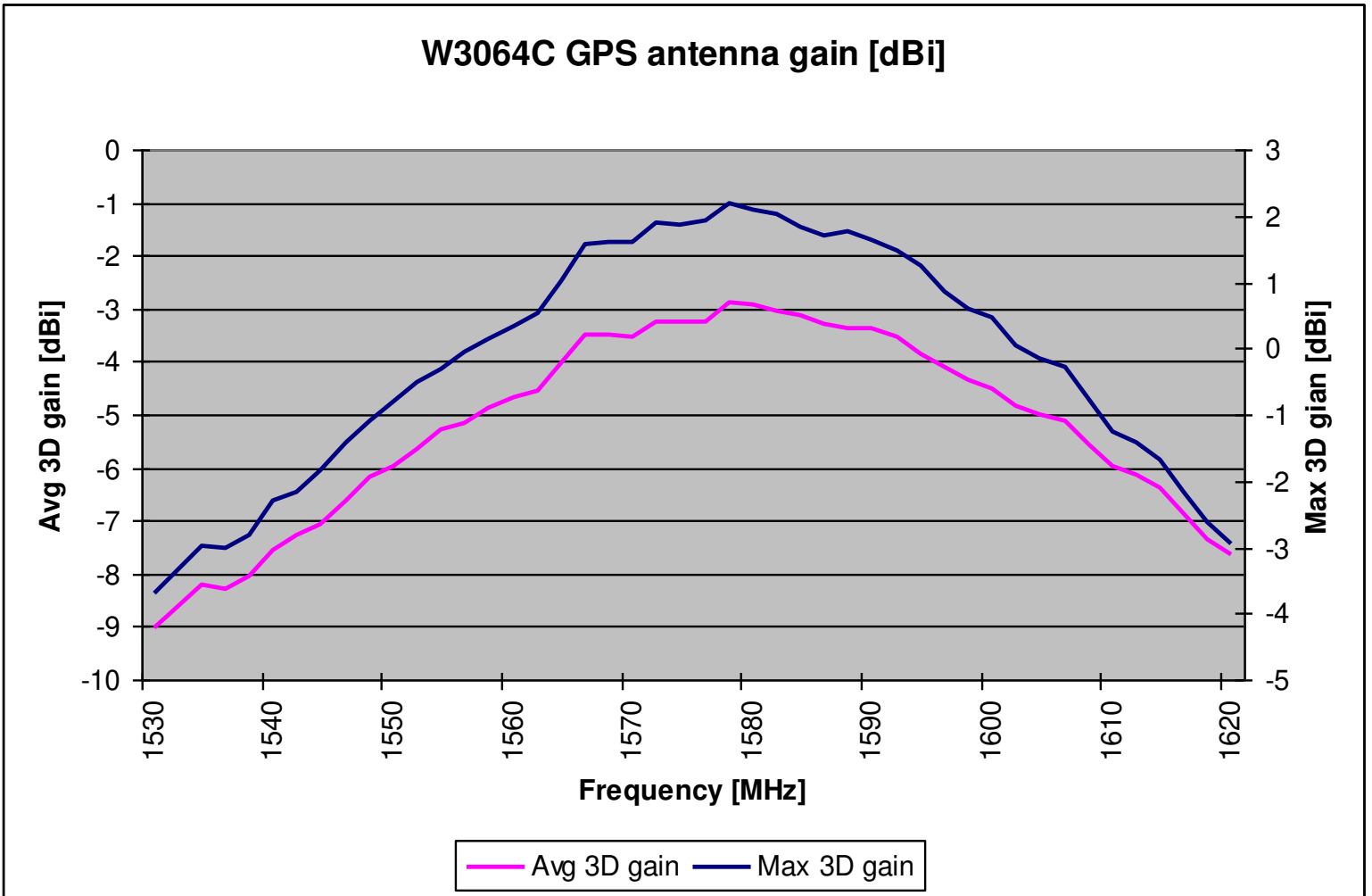
Series: Ceramic

PART NUMBER: W3064C

CHARTS

Peak Gain(dBi)

W3064C GPS antenna gain [dBi]



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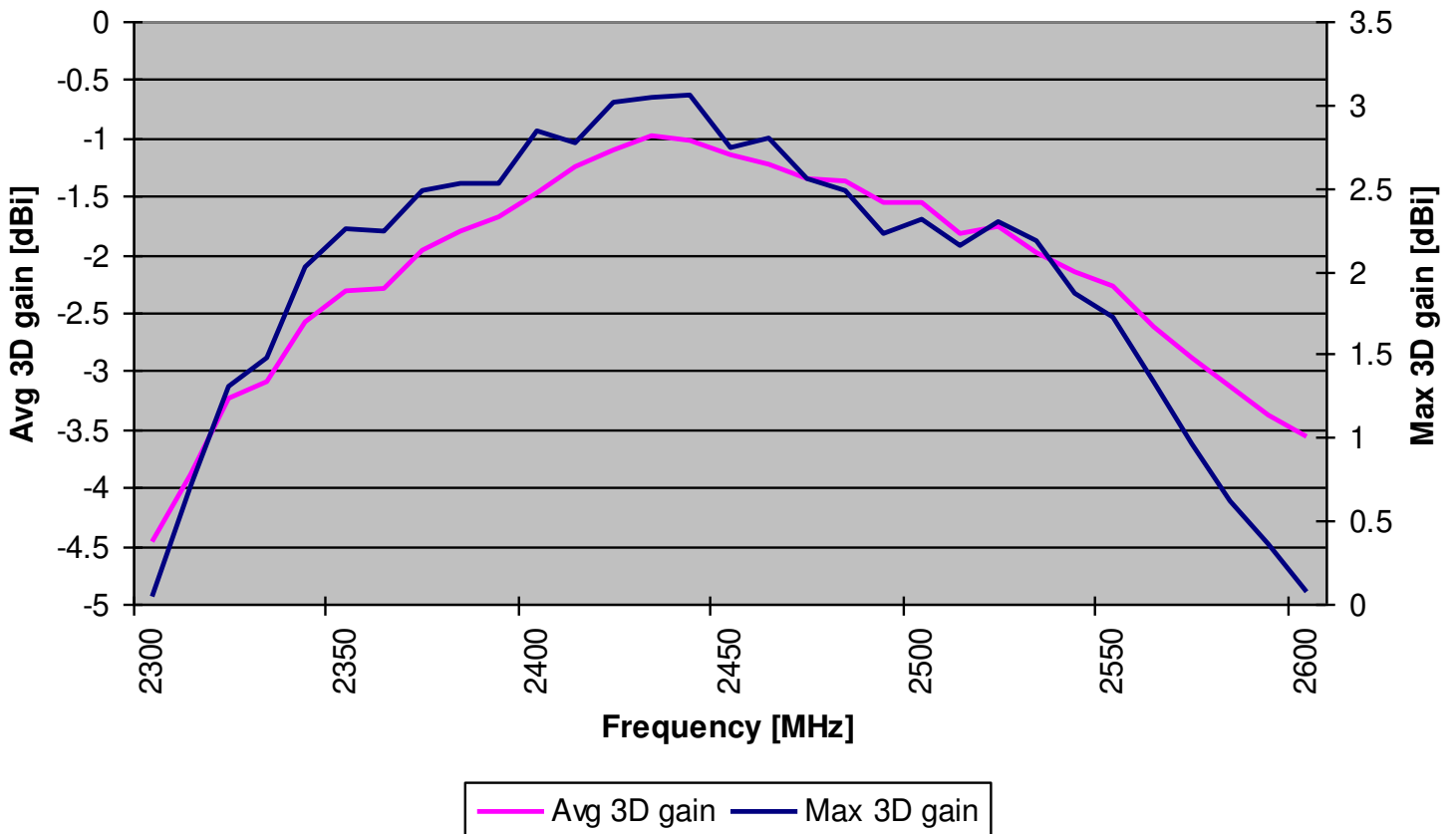
Series: Ceramic

PART NUMBER: W3064C

CHARTS

Peak Gain(dBi)

W3064C BT antenna gain



Description: Dual Feed GNSS/2.4GHz Ceramic

Series: Ceramic

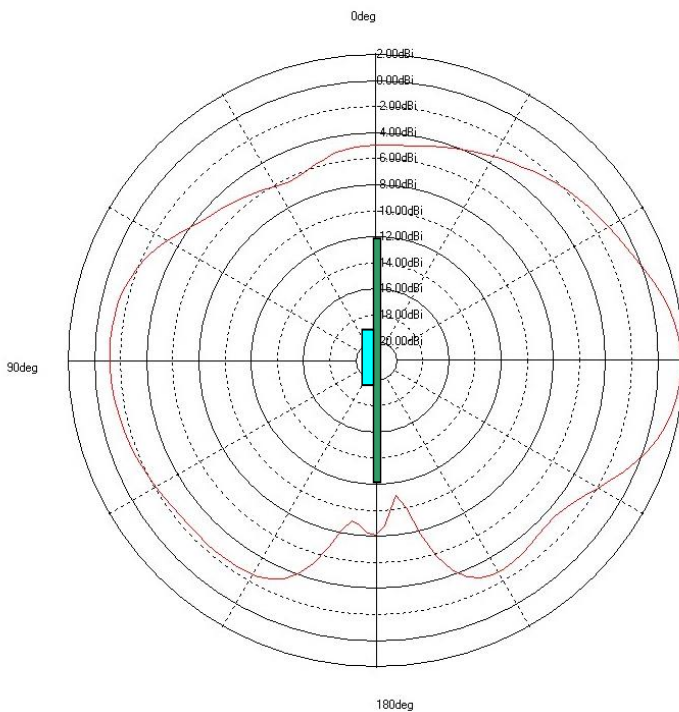
PART NUMBER: W3064C

CHARTS

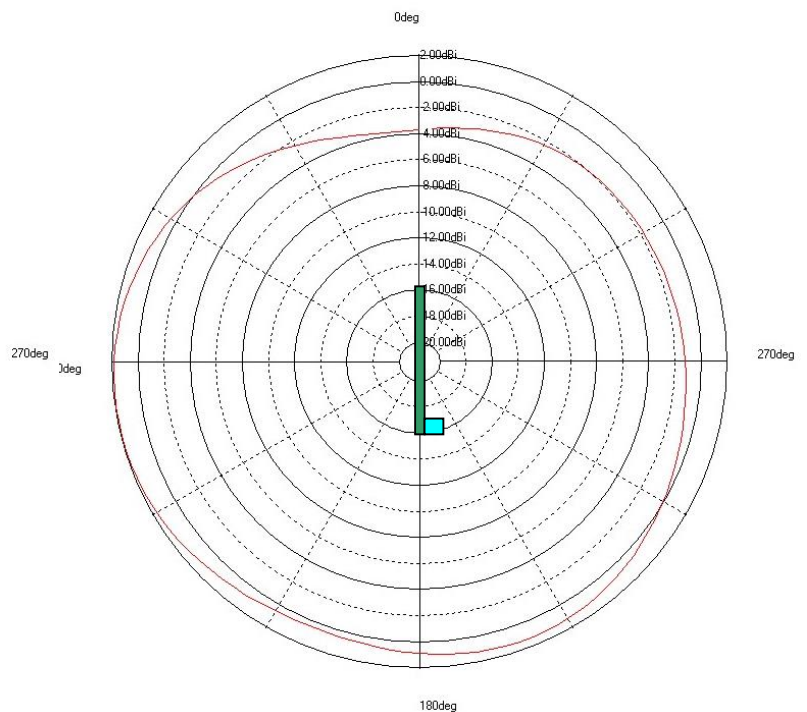
Free Space Radiation Pattern

1575MHz

Elevation Plane



Horizontal Plane



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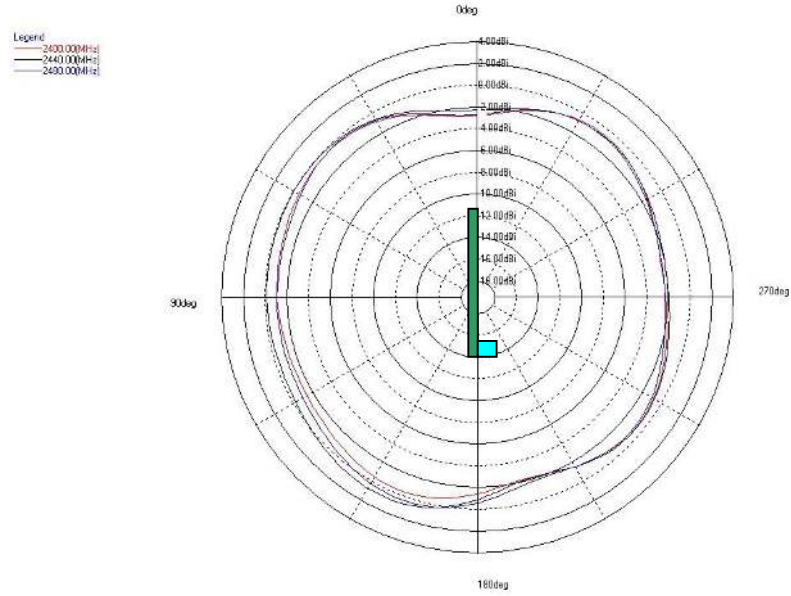
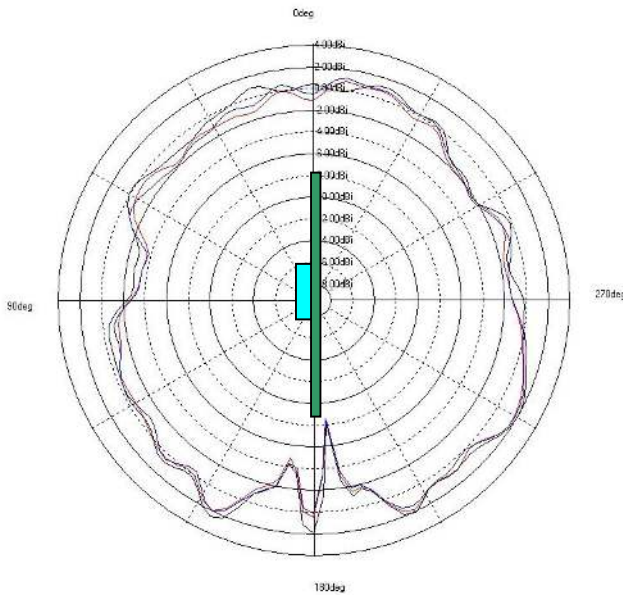
CHARTS

Free Space Radiation Pattern

2400MHz 2440MHz 2480MHz

Elevation Plane

Horizontal Plane



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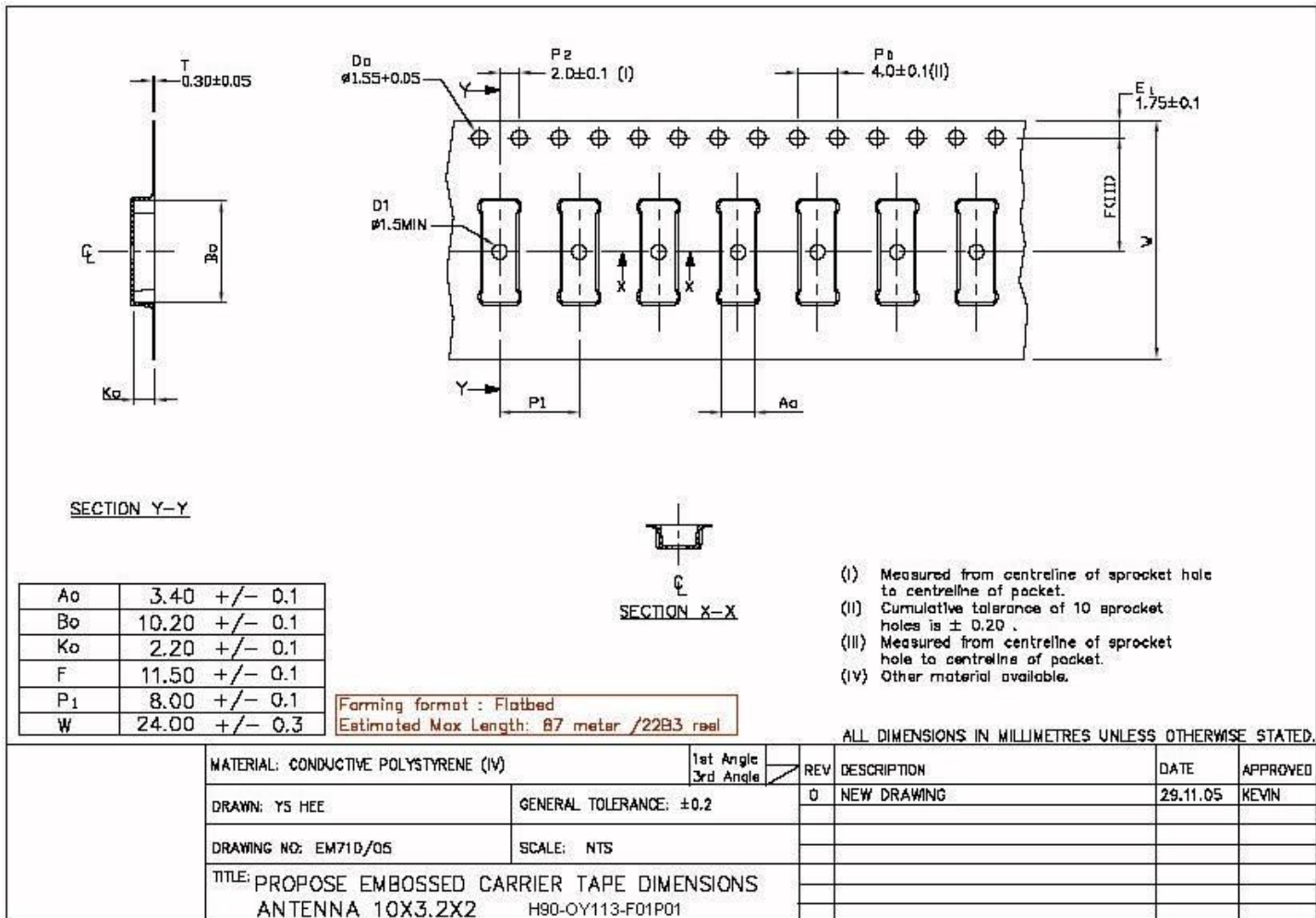
PART NUMBER: W3064C

PACKAGING

General

Tape and reel packing is used. Carrier tape, reel and box dimensions are presented in following pictures. 1K Antenna per Reel, 2K Antenna per Inbox, 6K Antenna per Outbox

Carrier tape



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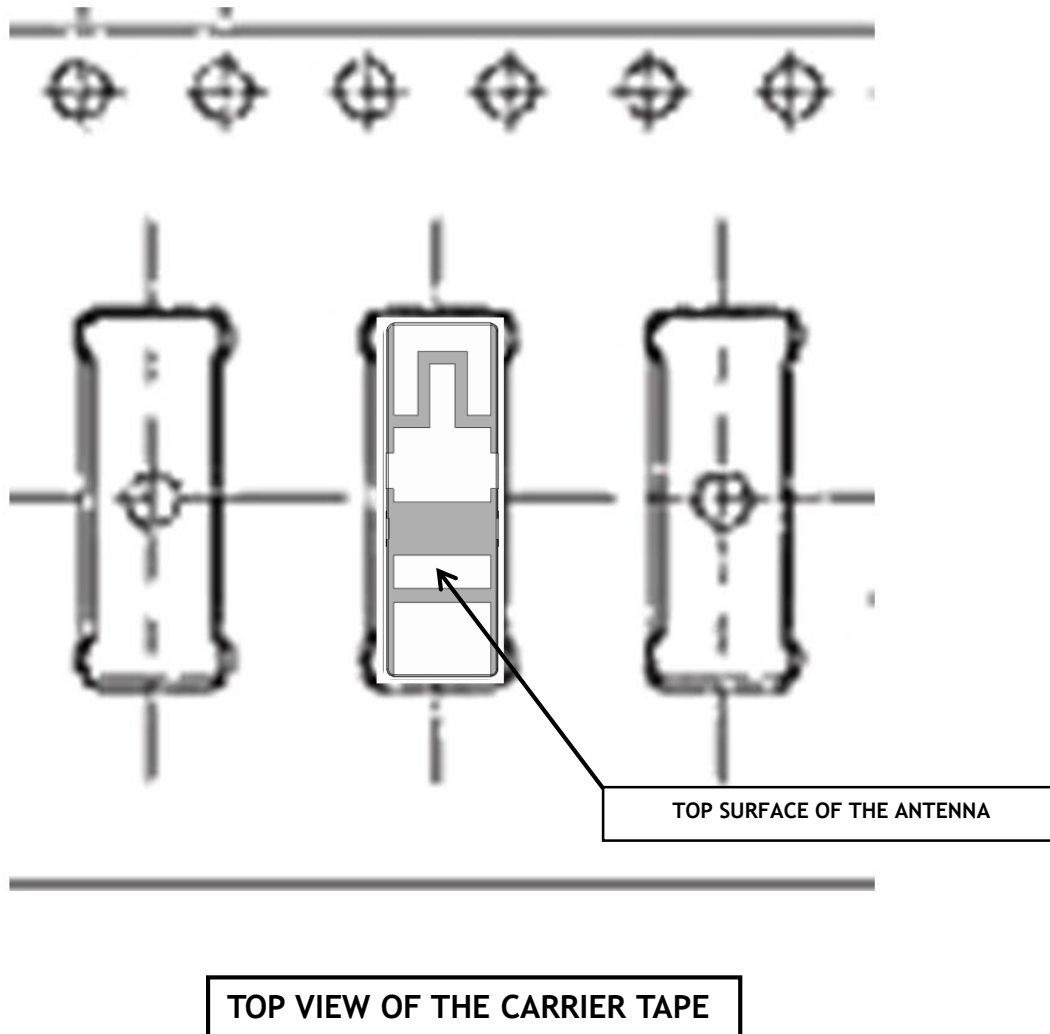
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PACKAGING

Top view of the carrier tape



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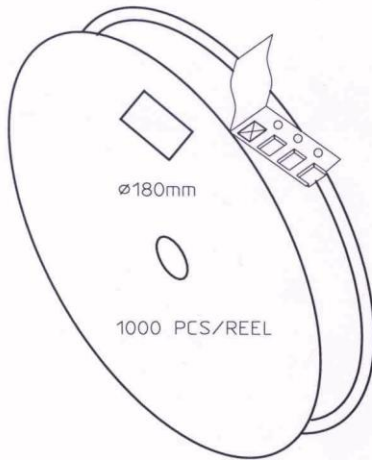
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PACKAGING

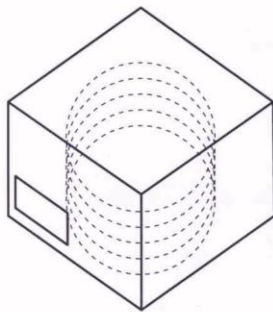


CARRIER TAPE H85-00188
width=24,00 depth=2.20
COVER TAPE H85-00159
width=21.20


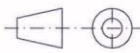
LENGTH OF TAPE:

- Leader section: min 350 mm before component section
- Trailer section: min 40 mm after component section.

Empty part cavities at leader and trailer section of the tape must be sealed with top cover tape.



BOX H85-00128 (182x182x125)	1 pcs
- LABEL	1 pcs/BOX
REEL H85-00160 (D180, W28)	4 pcs
- REEL LABEL	1 pcs/REEL

MATERIAL					
HANDLINGS					
		RATIO	DRWN	160107 PeHa	H
			DGNER		G
			CHKD		F
			APPRD		E
PRODUCT			APPRD BY		D
H90-OY113-F01P01					C
DENOMINATION					B
PACKING FORM					A
			VERSION	MOD/DATE/NAME	

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