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Panasonic

LG ELECTRONICS Co., Ltd.

No. _____

Date 25. SEP. 2001

Title ANTENNA FOR PORTABLE CELLULAR TELEPHONE

Part No. EWPACB005 * TYPE

Customer's Part No.

Model

SPECIFICATION

Customer's Receipt Requested

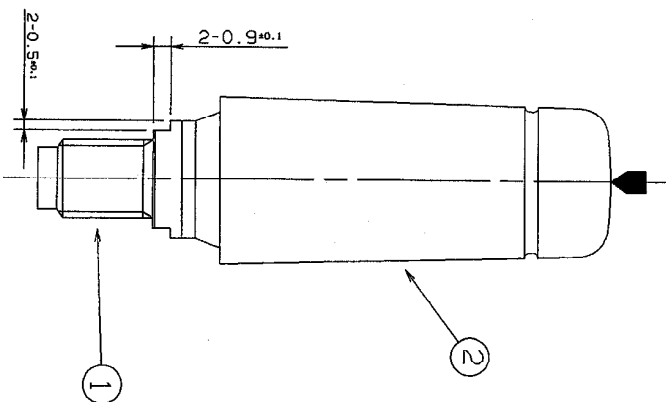
Please return this copy as a confirmation
Of your receipt.

Received by : _____ Date: _____

MATSUSHITA ELECTRONIC COMPONENTS CO., LTD.
CUSTOM COMPONENTS COMPANY
ELECTROMECHANICAL COMPONENTS BUSINESS UNIT
1006.KADOMA, OSAKA, JAPAN 571-8506
Telephone: (06) 6908-1101
Publication: Tsuyama Matsushita Electric Co., Ltd.

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3rd Angle System Unit: mm Drawing Not to Scale						
Tolerance	No.	Item or Code No.	Material & Size	Qty	Process	Remark
±0.5	1	Threaded Insert	Zinc Diecast D0C2	1	Cu/NI Plated	
	2	Body	ABS	1		



CREST

ø3.77~3.98

Type	Issue 3m	Date	Revision	Approved	Checked	Designed	Signed
ANTENNA FOR PORTABLE CELLULAR TELEPHONE	△						
	△						
	△						
	△						

M. McKeown

Customer LG _____
BV-H-0001: _____
8 /

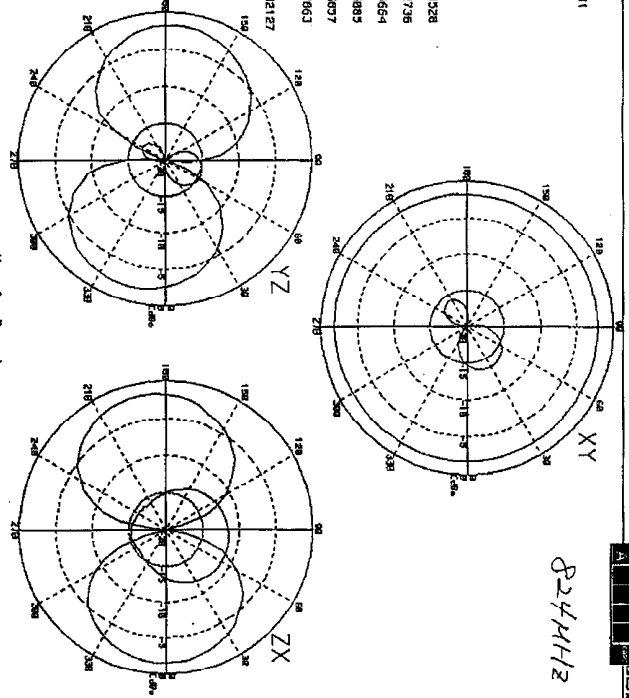
株式会社 式樣設計 西野 山下 建築

ant-fix-00-ewpacb005-r00

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HP BASIC for Windows - 20.0AS

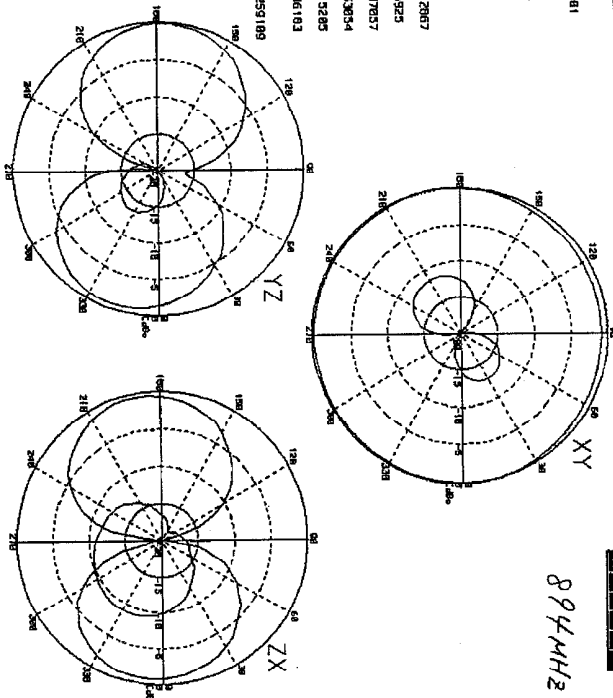
Date: 125 Sep 2081
Home location: 16.134
Polar location: XY, YZ, ZX
Polar U: 1.0, 1.0, 1.0
Ref: H: 1.0, 1.0, 1.0
Start angle: 0, 0, 0
Stop angle: 360, 360, 360
Turntable: 1, 1, 1
Height: 1.0, 1.0, 1.0
Frequency (Hz): 2.4245E+7
XY-L: #PASCAD3=1.9299510328
XY-P: #PASCAD3=1.67342
YZ-L: #PASCAD3=1.578
YZ-P: #PASCAD3=1.578
ZX-L: #PASCAD3=1.578
ZX-P: #PASCAD3=1.578
Efficiency (dB): 1.0, 1.0, 1.0



824MHz

HP BASIC for Windows - 20.0AS

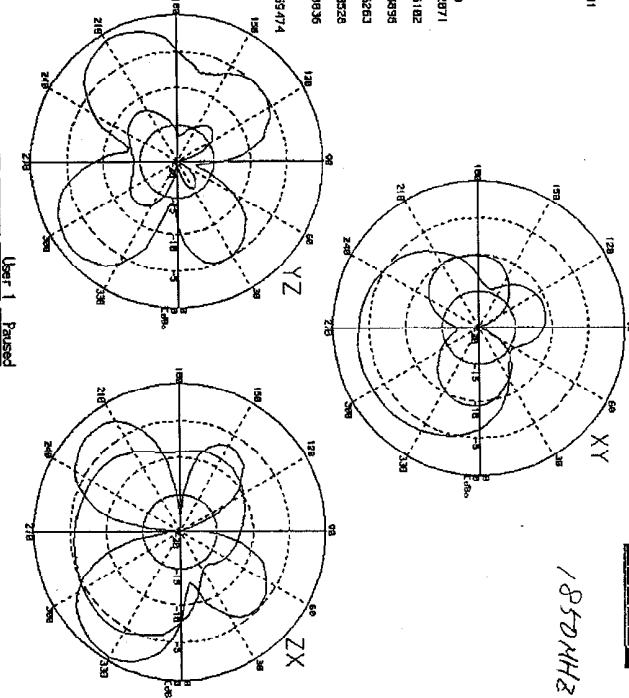
Date: 125 Sep 2081
Home location: 16.134
Polar location: XY, YZ, ZX
Polar U: 1.0, 1.0, 1.0
Ref: H: 1.0, 1.0, 1.0
Start angle: 0, 0, 0
Stop angle: 360, 360, 360
Turntable: 1, 1, 1
Height: 1.0, 1.0, 1.0
Frequency (Hz): 9.466E+7
XY-L: #PASCAD3=1.9299510328
XY-P: #PASCAD3=1.67342
YZ-L: #PASCAD3=1.578
YZ-P: #PASCAD3=1.578
ZX-L: #PASCAD3=1.578
ZX-P: #PASCAD3=1.578
Efficiency (dB): 1.0, 1.0, 1.0



894MHz

HP BASIC for Windows - 20.0AS

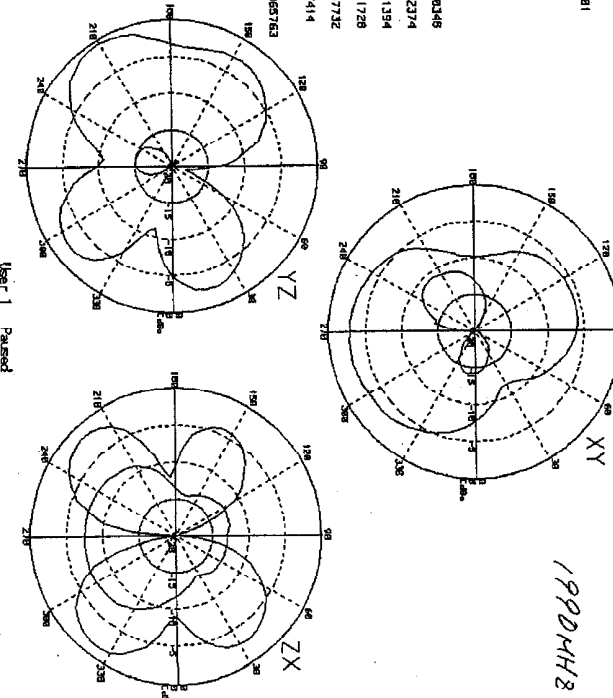
Date: 125 Sep 2081
Home location: 16.134
Polar location: XY, YZ, ZX
Polar U: 1.0, 1.0, 1.0
Ref: H: 1.0, 1.0, 1.0
Start angle: 0, 0, 0
Stop angle: 360, 360, 360
Turntable: 1, 1, 1
Height: 1.0, 1.0, 1.0
Frequency (Hz): 6.59215E+8
XY-L: #PASCAD3=12.3592416102
XY-P: #PASCAD3=1.67342
YZ-L: #PASCAD3=1.578
YZ-P: #PASCAD3=1.578
ZX-L: #PASCAD3=1.578
ZX-P: #PASCAD3=1.578
Efficiency (dB): 1.0, 1.0, 1.0



1850MHz

HP BASIC for Windows - 20.0AS

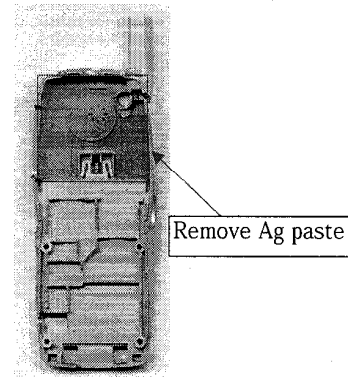
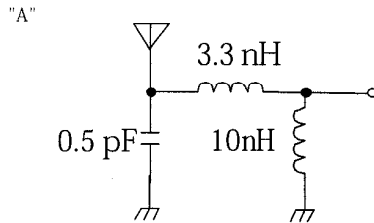
Date: 125 Sep 2081
Home location: 16.134
Polar location: XY, YZ, ZX
Polar U: 1.0, 1.0, 1.0
Ref: H: 1.0, 1.0, 1.0
Start angle: 0, 0, 0
Stop angle: 360, 360, 360
Turntable: 1, 1, 1
Height: 1.0, 1.0, 1.0
Frequency (Hz): 9.584E+8
XY-L: #PASCAD3=12.3592416102
XY-P: #PASCAD3=1.67342
YZ-L: #PASCAD3=1.578
YZ-P: #PASCAD3=1.578
ZX-L: #PASCAD3=1.578
ZX-P: #PASCAD3=1.578
Efficiency (dB): 1.0, 1.0, 1.0



1990MHz

This is a report on the result of study of matching circuits for Panasonic's ANT.

The following circuit "A" was tested for LG.
The circuit "A" is our recommendable one for LG.

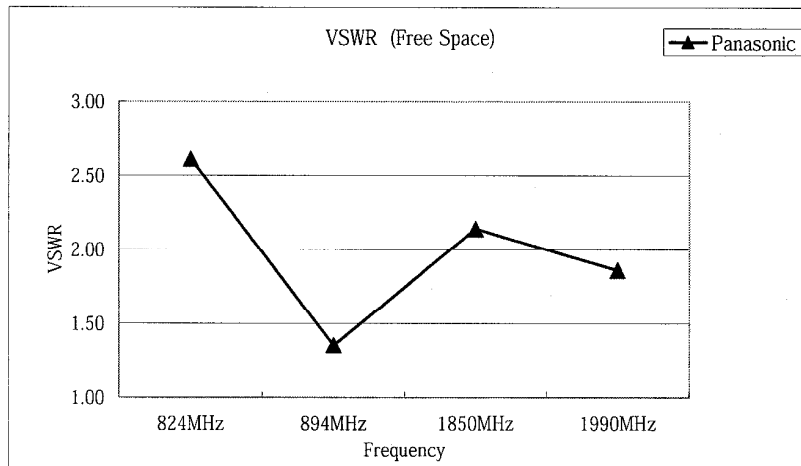


The result of tests

① VSWR

M.C. = Matching Circuit F.S. = Free Space

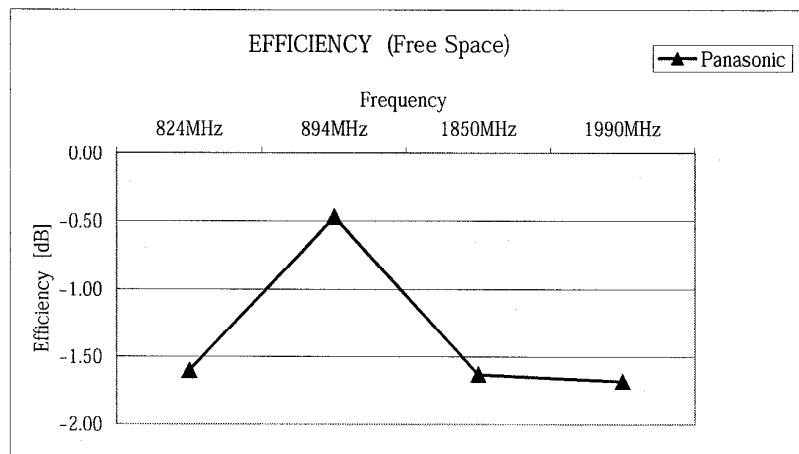
		824MHz	894MHz	1850MHz	1990MHz
Test fixture	M.C.	F.S.	F.S.	F.S.	F.S.
Panasonic	A	2.61	1.35	2.14	1.86



② Efficiency

[dB]

		824MHz	894MHz	1850MHz	1990MHz
Test fixture	M.C.	F.S.	F.S.	F.S.	F.S.
Panasonic	A	-1.60	-0.47	-1.63	-1.68



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25 Sep 2001 10:31:33

CH1 S11 1 U FS

5: 152.70 Ω -578.13 m Ω 341.00 pF

807.320 001 MHz

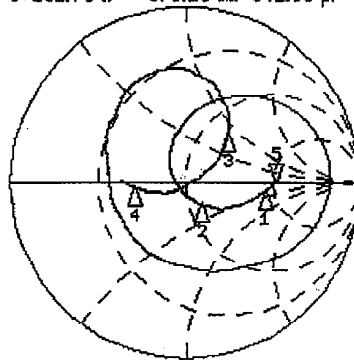
De1

Cor

PRm

↑

Free Space



CH1 Markers

1: 127.63 Ω
-15.980 Ω
824.000 MHz
2: 57.367 Ω
-14.525 Ω
894.000 MHz
3: 65.441 Ω
41.957 Ω
1.85000 GHz
4: 26.885 Ω
-1.5928 Ω
1.99000 GHz

CH2

S11 SHR

1 / REF 1

5: 3.0548

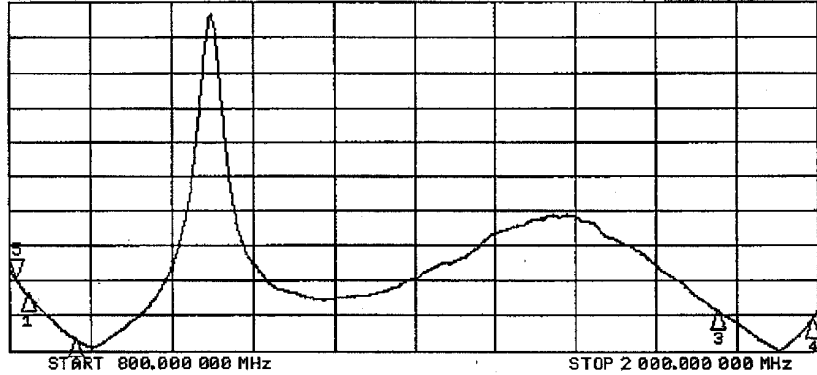
807.320 001 MHz

De1

Cor

PRm

↑



CH2 Markers

1: 2.6057
824.000 MHz
2: 1.3539
894.000 MHz
3: 2.1448
1.85000 GHz
4: 1.8625
1.99000 GHz