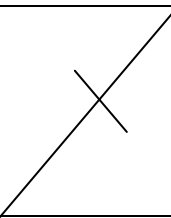


HOSEO TELNET

APPROVAL SHEET

ST-902 Rx HELICAL ANTENNA		
NO	MODEL	FREQUENCY
1	HS935-R1	929 ~ 942 MHz

공 급 업 체			승 인 업 체		
작 성	검 토	승 인	작 성	검 토	승 인
					



HANWOOL TECHNOLOGY

#1001, 1002 IT303-DONG, SAMJUNG-DONG, OHJUNG-GU,
PUCHON-CITY, KYOUNG GI-DO, KOREA
TEL : 032) 624-2555 FAX : 032) 624-2559

ANTENNA SPECIFICATION

1. MODEL: HS935-R1

2. APPLICATION: This specification is provided for 900MHz Rx HELICAL ANTENNA.

3 ANTENNA used condition

☒ Portable ☒ Fixing ☐ Movement ☒ Out-door ☒ In-door ☒ Etc()

4. ANTENNA Drawing

Attached Drawing paper

5. Electrical specification and performance

Satisfied next data with real used or similar environment conditions.

No.	ELECTRICAL DATA	SPECIFICATIONS	REMARK
5. 1	FREQUENCY RANGE	929 ~ 942 MHz	
5. 2	RESONANCE FREQUENCY	935.5 MHz	SET CONDITION
5. 3	IMPEDANCE	50Ω NOMINAL	
5. 4	V . S . W . R	LESS THAN 2.0	
5. 5	GAIN	-4.0 ± 1.0 dBi	
5. 6	RADIATION PATTERN	OMNI - DIRECTIONAL	
5. 7	POLARIZATION	VERTICAL	

6. Hardware specification and mechanical

No.	MECHANICAL	SPECIFICATIONS	REMARK
6. 1	SPRING	Φ 0.5 PWG	Ni-PLATING
6. 2	ANTENNA TOTAL LENGTH	23.6 ± 1.0 mm	

7. HELIX DEFORMATION

Bending Force : $F_b = 5 \text{ Kgf}$

Demands : No visual and mechanical changes.

The fitting and mold will be unchanged mechanically during the test.

The antenna shall satisfy the electrical data.

8. SINUSOIDAL VIBRATION

Vibration Frequencies : 5- 55 - 5 Hz (1 cycle)

Sweep Rate : 1 cycle/min

Maximum Amplitude : A - 1.5 mm

Maximum Acceleration : 2 g

Measuring method

The antenna is combined in the test equipment.

The vibration is done X and Y direction (left, right, up and down) according to below image.

It continued for 2 hours each direction.

9. OPERATING TEMPERATURE

Temperature : $- 30^{\circ}\text{C} \sim +70^{\circ}\text{C}$

Demands : Set Antenna for 96 hours each temperature.

No visual and mechanical changes.

The fitting and mold will be unchanged mechanically during the test.

The antenna shall satisfy the electrical data

10. HUMIDITY

Condition : 90% ~ 95% / $+40^{\circ}\text{C}$

Measuring method

Antenna is placed in climatic chamber for 96 hours.

Antenna is taken out from the chamber and measured

after another 24 hours in room temperature

Demands : No visual and mechanical changes.

The fitting and mold will be unchanged mechanically during the test.

The antenna shall satisfy the electrical data.

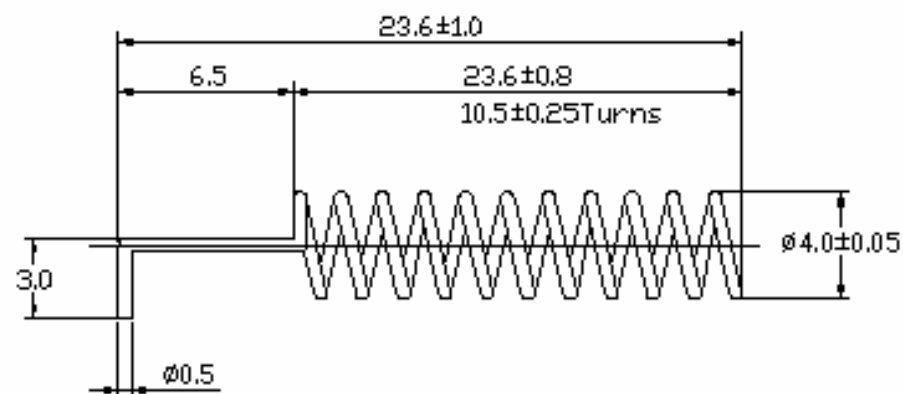
11. TEST and Q/C

This specification is according to fitting demands and suitable Hanwool technology Q/C provision.

But it is possible to skip No. 7~10 demands, after consultation with buyer.

DQ No.	HW-081203-2	Modify No.		Write	Wan-choul. Lee
Supply to	HOSEO TELNET	Date	2008-12-03	Approval	Chang-gi. Nam

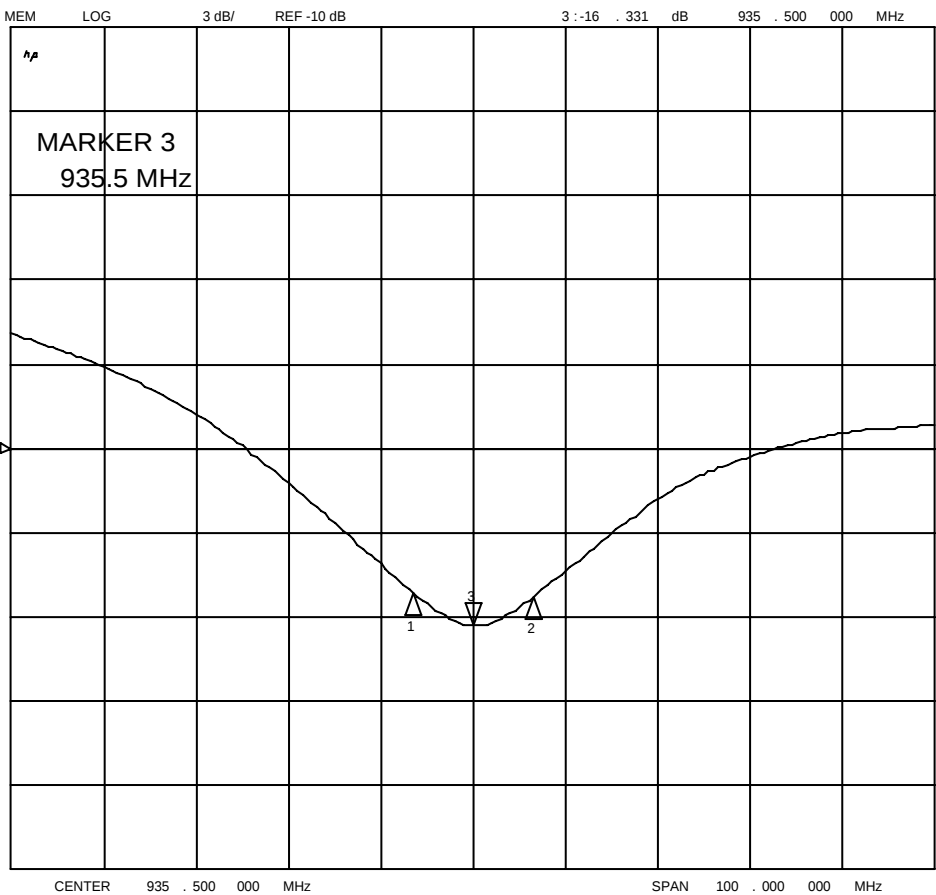
TOL Unless Noted	DIMENSION	mm	No	DATE	REVISION	CHECKER
X ₁ = ±0.5	SCALE		△	20 . . .		
X.X = ±0.1	MATERIAL	PWG	△	20 . . .		
X.XX = ±0.05	FINISH	NI-PLATING				



TITLE	ST-902 Rx SPRING			MODEL	HS935-R1				
Drawn	Checked	Approval	Date	DWG No.	File Name				
W.C,LEE		C.G,NAM	2008.11.29	081129-2	HOSED TELNET	No.	PART NAME	MATERIAL	FINISH

28 Nov 2008 00:55:11

CH1



CH1 Markers

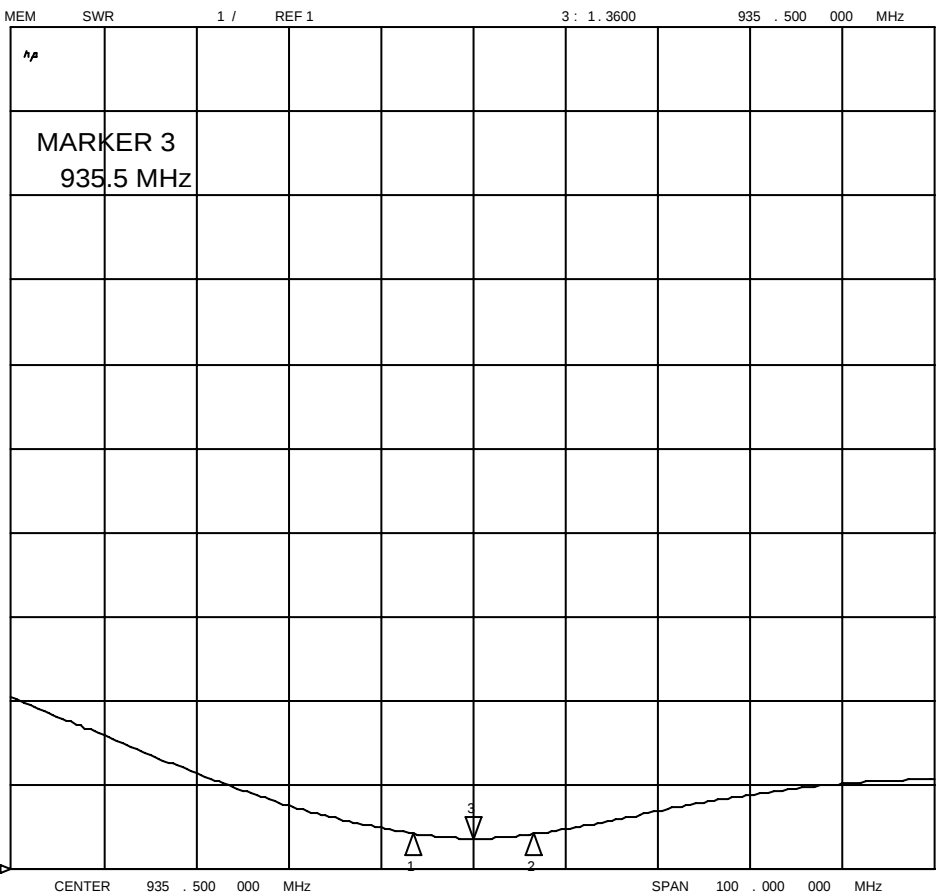
1 :-15 .178 dB
929 .000 MHz

2 :-15 .308 dB
942 .000 MHz

STIMULUS	CH1 MEM
MHz	
923.500 000	-13.589 dB
924.000 000	-13.730 dB
924.500 000	-13.816 dB
925.000 000	-13.977 dB
925.500 000	-14.117 dB
926.000 000	-14.290 dB
926.500 000	-14.423 dB
927.000 000	-14.566 dB
927.500 000	-14.765 dB
928.000 000	-14.865 dB
928.500 000	-15.036 dB
929.000 000	-15.178 dB
929.500 000	-15.329 dB
930.000 000	-15.420 dB
930.500 000	-15.549 dB
931.000 000	-15.680 dB
931.500 000	-15.793 dB
932.000 000	-15.882 dB
932.500 000	-15.965 dB
933.000 000	-16.065 dB
933.500 000	-16.158 dB
934.000 000	-16.234 dB
934.500 000	-16.281 dB
935.000 000	-16.315 dB
935.500 000	-16.331 dB
936.000 000	-16.330 dB
936.500 000	-16.304 dB
937.000 000	-16.274 dB
937.500 000	-16.216 dB
938.000 000	-16.141 dB
938.500 000	-16.058 dB
939.000 000	-15.967 dB
939.500 000	-15.868 dB
940.000 000	-15.778 dB
940.500 000	-15.652 dB
941.000 000	-15.532 dB
941.500 000	-15.448 dB
942.000 000	-15.308 dB

28 Nov 2008 00:45:22

CH1



CH1 Markers

1 : 1.4219
929 . 000 MHz

2 : 1.4144
942 . 000 MHz

STIMULUS	CH1 MEM
MHz	
923.500 000	1.5291
924.000 000	1.5183
924.500 000	1.5118
925.000 000	1.5002
925.500 000	1.4902
926.000 000	1.4782
926.500 000	1.4692
927.000 000	1.4598
927.500 000	1.4471
928.000 000	1.4409
928.500 000	1.4304
929.000 000	1.4219
929.500 000	1.4131
930.000 000	1.4080
930.500 000	1.4008
931.000 000	1.3936
931.500 000	1.3875
932.000 000	1.3828
932.500 000	1.3785
933.000 000	1.3733
933.500 000	1.3686
934.000 000	1.3648
934.500 000	1.3625
935.000 000	1.3608
935.500 000	1.3600
936.000 000	1.3600
936.500 000	1.3613
937.000 000	1.3629
937.500 000	1.3657
938.000 000	1.3695
938.500 000	1.3737
939.000 000	1.3784
939.500 000	1.3835
940.000 000	1.3883
940.500 000	1.3951
941.000 000	1.4017
941.500 000	1.4064
942.000 000	1.4144