Telex® Technical Data

WLAN/U-NII Omnidirectional Antenna 5.725 - 5.825 GHz

Order No. 5830AN

General Description

This antenna was designed for WLAN applications for frequencies of 5725 MHz to 5825 MHz. The antenna is omnidirectional and has a nominal gain of 7.5 dBi when measured at the standard Type N coax connector. This antenna is designed to be mounted on a round mast.

Specifications

Electrical:

Frequency Range	5725 - 5825 MHz
VSWR	nominal 1.4:1, maximum 2:1
Nominal Impedance	50 ohms
Nominal Gain	7.5 dBi
Half-power Elevation Beamwidth	15 degrees
Polarization	Vertical
Maximum Power	10 watts

Mechanical:

Size (without mount)	1.0 OD x 10.875 inches
Mounting method	Bracket and SS clamp, 2.0 inch. OD mast max.
Connector	Type N jack
Wind Survival (per EIA-222-E at 100' height)	100 mph
Humidity	5% - 95% (non-condensing)

Since it is the intent of TELEX COMMUNICATIONS, INC. to continually improve its products, Telex reserves the right to make specification and design changes without notice.

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March 2002

REVISION RECORD

REV	ECO	DESCRIPTION	APVD	DATE
01		GHANGE E - PLANE BEAMWIDTH	YAEL H.	15.10.02

SHEET	43	44	45	46	47	48	49	50	51	52	53	54	55	56
REV														
SHEET	29	30	31	32	33	34	35	36	37	38	39	40	41	42
REV														
SHEET	15	16	17	18	19	20	21	22	23	24	25	26	27	28
REV														
SHEET	1	2	3	4	5	6	7	8	9	10	11	12	13	14
REV														

PRODUCT STATUS:
☐ PROPOSAL, ☐ INDEVELOPMENT
☒ PREPRODUCTION, ☐ PRODUCTION

ACTION	NAME	SIGN	DATE
PREP	Y.MILLER		
CHKD	D.FAINER		
DSGN	M.HAIKIN		
PROJ	ALEX DRAGILEV		
MFG			

MTi **WIRELESS EDGE LTD.**

TITLE

SPECIFICATION FOR MT - 482009/N
OMNIDIRECTIONAL ANTENNA
5.725 – 5.875 GHz , 9 dBi

SIZE	CLASSIFICATION	DWG NO

QA	M.MOTOVICH			A	NONE	RD41196600C
MARK.	D.SHANI			SCALE NONE		SHEET 1 OF 3

961-7/96

SIZE A	MTI WIRELESS EDGE	DWG NO RD41196600C	REV
SCALE NONE			SHEET 2 OF 3

SPECIFICATION

OMNIDIRECTIONAL ANTENNA

MTI PART NUMBER	MT – 482009/N
1. ELECTRICAL	
FREQUENCY RANGE	5.725 – 5.875 GHz
GAIN	9 dBi
VSWR	1.5 : 1 (typ) 1.7:1 (max)
AZIMUTH BEAMWIDTH	360 deg
AZIMUTH RIPPLE	± 0.5 dB
POLARIZATION	Linear Vertical
E - PLANE BEAMWIDTH	6.5 deg (nom)
E - PLANE SIDELOBES	- 11 dB (max)
INPUT IMPEDANCE	50 (ohms)
POWER	6 W (max)
LIGHTNING PROTECTION	DC grounded
2. MECHANICAL	
DIMENSIONS : DIAMETER HEIGHT	40 mm 500 mm
WEIGHT	0.5 kg (max)
CONNECTOR	N- type female
RADOME	Plastic, UV Resistant
BASE PLATE	Aluminum with chemical conversion coating
OUTLINE DRAWING	
3. MOUNTING KIT	
CONFIGURATION	TBD

4. ENVIRONMENTAL				
TEST	**STANDARD**	**DURATION**	**TEMPERTURE**	**NOTES**
LOW TEMPERATURE	IEC 68-2-1	72 h	-55°C	-
HIGH TEMPERATURE	IEC 68-2-2	72 h	+71°C	-
TEMP. CYCLING	IEC 68-2-14	1 h	-45°C +70°C	3 Cycles
VIBRATION	IEC 60721-3-4	30 min/axis	-	Random 4M3
SHOCK MECHANICAL	IEC 60721-3-4	-	-	4M3
HUMIDITY	ETSI EN300-2-4 T4.1E	144 h	-	95%
WATER TIGHTNESS	IEC 529	-	-	IP67
SOLAR RADIATION	ASTM G53	1000 h	-	-
SALT SPRAY	IEC 68-2-11 Ka	500 h	-	-
ICE AND SNOW	-	-	-	25mm Radial
WIND SPEED SURVIVAL OPERATION	 - -	 - -	 - -	 220 Km/h 160 Km/h

REVISION RECORD

REV	ECO	DESCRIPTION	APVD	DATE
01		GHANGE E - PLANE BEAMWIDTH	YAEL H.	15.10.02
A	CV54	RELEASED	YAEL H.	14.11.02
B	CW36	CHANGE FREQ.	YAEL H,	12.12.02

SHEET	43	44	45	46	47	48	49	50	51	52	53	54	55	56
REV														
SHEET	29	30	31	32	33	34	35	36	37	38	39	40	41	42
REV														
SHEET	15	16	17	18	19	20	21	22	23	24	25	26	27	28
REV														
SHEET	1	2	3	4	5	6	7	8	9	10	11	12	13	14
REV	B	B	B											

PRODUCT STATUS:
☐ PROPOSAL, ☐ INDEVELOPMENT
☒ PREPRODUCTION, ☐ PRODUCTION

ACTION	NAME	SIGN	DATE
PREP	Y.MILLER	Y.M	17.10.02
CHKD	D.FAINER	D.F	13.11.02
DSGN	M.HAIKIN	M.H	22.1.02
PROJ	ALEX DRAGILEV	A.D	7.11.02
MFG			

MTi **WIRELESS EDGE LTD.**

TITLE

SPECIFICATION FOR MT - 483003/N
OMNIDIRECTIONAL ANTENNA
5.625 – 5.875 GHz , 12 dBi

SIZE	CLASSIFICATION	DWG NO

QA	M.MOTOVICH	MOTI	12.11.02	A	NONE	RD41196100C
MARK.	D.SHANI	D.S	12.11.02	SCALE NONE		SHEET 1 OF 3

961-7/96

SIZE A	MTI WIRELESS EDGE	DWG NO RD41196100C	REV B
SCALE NONE		SHEET 2 OF 3	

SPECIFICATION

OMNIDIRECTIONAL ANTENNA

MTI PART NUMBER	MT – 483003/N
1. ELECTRICAL	
FREQUENCY RANGE	5.625 – 5.875 GHz
GAIN	11.5 dBi @ 5.625 – 5.725 GHz 12 dBi @ 5.725 – 5.875 GHz
VSWR	1.7:1 (max)
AZIMUTH BEAMWIDTH	360°
AZIMUTH RIPPLE	± 1 dB
ELECTRICAL DOWN TILT	-4° (typ) @ 5.625 GHz -2° (typ) @ 5.725 GHz -1° (typ) @ 5.8 GHz 0° (typ) @ 5.875 GHz
POLARIZATION	Linear Vertical
E - PLANE BEAMWIDTH	4.5° (typ)
E - PLANE SIDELOBES	-9 dB (max) @ 5.625 – 5.725 GHz -10 dB (max) @ 5.725 – 5.875 GHz
INPUT IMPEDANCE	50 (ohms)
POWER	6 W (max)
LIGHTNING PROTECTION	DC Grounded
2. MECHANICAL	
DIMENSIONS : DIAMETER HEIGHT	56 mm (max) 830 mm (max)
WEIGHT	0.7 kg (max)
CONNECTOR	N -type female
RADOME	Plastic, UV Resistant
BASE PLATE	Aluminum with chemical conversion coating
OUTLINE DRAWING	RD41195800C
3. MOUNTING KIT	
CONFIGURATION	Mounted to pole by the means of 2 clamps.

4. ENVIRONMENTAL				
TEST	**STANDARD**	**DURATION**	**TEMPERTURE**	**NOTES**
LOW TEMPERATURE	IEC 68-2-1	72 h	-55°C	-
HIGH TEMPERATURE	IEC 68-2-2	72 h	+71°C	-
TEMP. CYCLING	IEC 68-2-14	1 h	-45°C +70°C	3 Cycles
VIBRATION	IEC 60721-3-4	30 min/axis	-	Random 4M3
SHOCK MECHANICAL	IEC 60721-3-4	-	-	4M3
HUMIDITY	ETSI EN300-2-4 T4.1E	144 h	-	95%
WATER TIGHTNESS	IEC 529	-	-	IP67
SOLAR RADIATION	ASTM G53	1000 h	-	-
SALT SPRAY	IEC 68-2-11 Ka	500 h	-	-
ICE AND SNOW	-	-	-	25mm Radial
WIND SPEED SURVIVAL OPERATION	 - -	 - -	 - -	 220 Km/h 160 Km/h

90° 5.725 - 5.850 GHz
Sector Antennas

Features

- **Antenna dimensions**
  - 25.5 x 8.5 x 7.5″ (65 x 21.6 x 19 cm)
- **Flat panel design offers low windloads**
- **Lightweight and rugged design**
- **Easily installed**
- **RF Connector Interface: Type "N" female**
- **Polarization**
  - Plane Polarized (horizontal or vertical)
- **Standard antenna mount accommodates a 2.5″ to 4.5″ diameter pipe**
- **Optional 15° mechanical downtilt**

Electrical Specifications (typical performance)*

Model Number	Frequency, GHz	Polarization	Gain dBi (nominal)	Beamwidth -3dB Az°	Beamwidth -3dB El.°	X-Pol. Rejection, dB	F/B Ratio dB	VSWR, Max (R.L., dB)
SEC-5V-90-17	5.725 - 5.850	Vertical	17.0	90	6	25	>35	1.5:1 (14.0)
SEC-5H-90-17	5.725 - 5.850	Horizontal	17.0	90	6	25	>35	1.5:1 (14.0)

* *All specifications subject to change without notice.*

Radio Waves, Inc.
http://www.radiowavesinc.com

60° 5.725 - 5.850 GHz
Sector Antennas

Features

- **Antenna dimensions:**
  - 25.5 x 8.5 x 7.5″ (65 x 21.6 x 19 cm)
- **Flat panel design offers low windloads**
- **Lightweight and rugged design**
- **Easily installed**
- **RF Connector Interface: Type "N" female**
- **Polarization: Vertical**
- **Standard antenna mount accommodates a 2.5″ to 4.5″ diameter pipe**
- **Optional 15° mechanical downtilt**

Electrical Specifications (typical performance)*

Model Number	Frequency, GHz	Polarization	Gain dBi (nominal)	Beamwidth -3dB Az°	Beamwidth -3dB El.°	X-Pol. Rejection, dB	F/B Ratio dB	VSWR, Max (R.L., dB)
SEC-5V-60-18	5.725 - 5.850	Vertical	18	60	6	25	>35	1.5:1 (14.0)

** All specifications subject to change without notice.*

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