

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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REVISION RECORD <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <th style="width: 10%;">REV</th> <th style="width: 10%;">ECO</th> <th style="width: 40%;">DESCRIPTION</th> <th style="width: 20%;">APVD</th> <th style="width: 20%;">DATE</th> </tr> <tr> <td>A</td> <td>CV19</td> <td>RELEASED</td> <td>Yael H.</td> <td>22.9.02</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>															REV	ECO	DESCRIPTION	APVD	DATE	A	CV19	RELEASED	Yael H.	22.9.02																														
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REV	A	A	A											

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PRODUCT STATUS: ☐ PROPOSAL, ☒ INDEVELOPMENT ☐ PREPRODUCTION, ☐ PRODUCTION				WIRELESS EDGE LTD.										
ACTION	NAME	SIGN	DATE											
PREP	Y. HRASH	Y.H	12.9.02	TITLE SPECIFICATION FOR MT – 482003/N OMNIDIRECTIONAL ANTENNA 5.15 – 5.875 GHz ,9 dBi										
CHKD	D. FAINER	D.F	19.9.02											
DSGN	A. HAVIV	A.H	19.9.02											
PROJ	A. DRAGILEV	A.D	19.9.02											
MFG														
SIZE CLASSIFICATION DWG NO														

QA	M. MOTOVICH	MOTI	19.9.02	A	NONE	RD41209600C
MARK.	D.SHANI	D.S	19.9.02	SCALE NONE		SHEET 1 OF 3

961-7/96

SIZE A	MTI WIRELESS EDGE	DWG NO RD41209600C	REV A
SCALE NONE		SHEET 2 OF 3	

SPECIFICATION

OMNIDIRECTIONAL ANTENNA

MTI PART NUMBER	MT – 482003/N
<u>1. ELECTRICAL</u>	
FREQUENCY RANGE	5.15 – 5.875GHz
GAIN	9dBi ± 2 dB @ 5.15 – 5.35GHz 9dBi ± 1.5 dB @ 5.725 – 5.875GHz
VSWR	1.7:1 (max)
AZIMUTH BEAMWIDTH	Omni
POLARIZATION	Linear Vertical
E – PLANE SIDELOBES LEVEL	-11 dB (MAX)
INPUT IMPEDANCE	50 (ohm)
INPUT POWER	4W (max)
LIGHTNING PROTECTION	DC Grounded
<u>2. MECHANICAL</u>	
DIMENSIONS : DIAMETER HEIGHT	60 mm (max) 500 mm (max)
WEIGHT	1.5 (kg) (max)
CONNECTOR	N - TYPE
RADOME	Plastic , UV Resistant
BASE PLATE	Aluminum with chemical conversion coating
OUTLIN DRAWING	RD41209700C
<u>3. MOUNTING KIT</u>	See RD41191800C
CONFIGURATION	Mounting Bracket to Pole $\varnothing 2.5''$ to $\varnothing 4.5''$
WEIGHT	2 Kg max

SIZE A	MTI WIRELESS EDGE	DWG NO RD41209600C	REV A
SCALE NONE		SHEET 3 OF 3	

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	-	-
FLAMMABILITY	UL 94	-	-	CLASS HB
SALT SPRAY	IEC 68-2-11 Ka	500 h	-	-
ICE AND SNOW	-	-	-	25mm Radial
WIND SPEED SURVIVAL OPERATION	- -	- -	- -	220 Km/h 160 Km/h
WIND LOAD (SURVIVAL): FRONT THRUST SIDE THRUST	- -	- -	- -	6.5 kg 6.5 kg

SIZE A	MTI WIRELESS EDGE	DWG NO RD41209600C	REV A
SCALE NONE		SHEET 4 OF 3	

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CHKD	D.FAINER													
DSGN	M.HAIKIN													
PROJ	ALEX DRAGILEV													
MFG														
				SIZE	CLASSIFICATION	DWG NO								

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

961-7/96

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

SPECIFICATION

OMNIDIRECTIONAL ANTENNA

MTI PART NUMBER	MT – 482009/N
<u>1. ELECTRICAL</u>	
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
<u>2. MECHANICAL</u>	
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	
<u>3. MOUNTING KIT</u>	
CONFIGURATION	TBD

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

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

SIZE A	MTI WIRELESS EDGE	DWG NO RD41196600C	REV
SCALE NONE		SHEET 4 OF 3	

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
<u>1. ELECTRICAL</u>	
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
<u>2. MECHANICAL</u>	
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
<u>3. MOUNTING KIT</u>	
CONFIGURATION	Mounted to pole by the means of 2 clamps.

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

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

SIZE A	MTI WIRELESS EDGE	DWG NO RD41196100C	REV B
SCALE NONE		SHEET 4 OF 3	



Gabriel 2.4 GHz Directional Flat Panel Antenna

Associated Equipment Information	Pages
Point-to-Point Antenna Specifications	14 - 111
Special Application Antennas	135 - 145
Antenna Mounts & Reference Dimensions	112 - 134
Radomes	122 - 124
Tower Accessories	146 - 154
Transmission Lines	155 - 243
Dry Air Pressurizers	244 - 253

2.4 GHz - Spread Spectrum Directional Flat Panel Antenna (for Point-to-Point applications)

Facts & Features

- Gabriel Quality and Dependability.
- Lightweight and durable construction.
- Quick and easy installation.
- Feed input, Type N Female connector.
- Input connector positioned on back of antenna assembly.
- Antenna supplied with paintable rigid radome.
- All Gabriel antennas meet or exceed Standards EIA-195-C and EIA-222-F.
- Antenna accommodates +/-20° elevation adjustment. (Specific installation limitations may apply.)
- Mini-Mounts accommodate a 1.9 in. to 4.5 in. (48 to 114 mm) O.D. mast pipe. Quick-Align Mounts mount to a 2.375 in. (60 mm) O.D. mast pipe. An optional 1.9 in. (48 mm) to 4.5 in. (114 mm) Mast Clamp Kit is available on request for the Quick-Align Mount.
- To adapt the Quick Align Mount for use on a 1.9 in. to 4.5 in. O.D. mast pipe order Mast Clamp Kit MCKQ-19-45
- Special colors and / or logos available on request.

Special Dual Band Directional Flat Panel Antennas available for 2.300 - 2.500 GHz and 5.725 - 5.850 GHz Spread Spectrum operation.

Electrical Specifications

Frequency GHz	Model Number	Diameter ft (m)	Mount Type	Low	Gain at Mid dBi	High	Nominal Mid-Band Beamwidth degrees	XPD dB	F/B ratio dB	VSWR max.	(R.L. dB)
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Square - Directional Flat Panel - Plane Polarized

2.300 - 2.500	DFPS.5-23	0.5	(0.15)	MM	10.0	10.3	10.5	53 / 35	24	22	1.50	(14.0)
	DFPS1-23	1	(0.3)	MM	16.2	16.5	16.8	24 / 21	28	28	1.50	(14.0)
	DFPS1-23 (M1)	1	(0.3)	QAM	16.2	16.5	16.8	24 / 21	28	28	1.50	(14.0)



5.725 - 5.850 GHz PARABOLIC SUBSCRIBER ANTENNAS

FEATURES

- **Antenna diameters:**
 - 1' (30 cm)
 - 1.5' (45 cm)
 - 2' (60 cm)
 - 3' (90 cm)
 - 4' (120 cm)
 - 6' (180 cm)
- **Antenna weights:**
 - 1' 15 lbs. (6.8kg)
 - 1.5' 18 lbs. (8.3kg)
 - 2' 22 lbs. (9.9kg)
 - 3' 35 lbs. (15.8kg)
 - 4' 60 lbs. (27.0kg)
 - 6' 90 lbs. (40.5kg)
- **Lightweight and rugged design**
- **Easily installed**
- **RF Connector Interface:** Type "N" female
- **Standard color white:** other colors available on request
- **Radome standard for 1' and 1.5' models, optional for all other models**
- **Dual Polarity models also available**



ELECTRICAL SPECIFICATIONS (typical performance)*

Model Number	Frequency, GHz	Polarization	Gain dBi (nominal)	Beamwidth ° -3dB	X-Pol. Rejection, dB	F/B Ratio dB	VSWR, Max (R.L., dB)
SP1-5.8	5.725 - 5.850	Single	22.5	11.7	17	30	1.5:1 (14.0)
SP1.5-5.8	5.725 - 5.850	Single	25.7	8.0	20	31	1.5:1 (14.0)
SP2-5.8	5.725 - 5.850	Single	28.5	6.2	28	36	1.5:1 (14.0)
SP3-5.8	5.725 - 5.850	Single	31.4	4.2	30	38	1.5:1 (14.0)
SP4-5.8	5.725 - 5.850	Single	34.8	3.0	30	42	1.5:1 (14.0)
SP6-5.8	5.725 - 5.850	Single	37.9	2.0	30	44	1.5:1 (14.0)

* All specifications subject to change without notice.