

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				
															REV	ECO	DESCRIPTION	APVD	DATE
															A	CV19	RELEASED	YAEL H.	22.9.02

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	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 $\pm$ 2 dB @ 5.15 – 5.35GHz 9dBi $\pm$ 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 Ø2.5" to Ø4.5"
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	

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
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REV														

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PRODUCT STATUS: ☐ PROPOSAL, ☐ INDEVELOPMENT ☒ PREPRODUCTION, ☐ PRODUCTION				 WIRELESS EDGE LTD.		
ACTION	NAME	SIGN	DATE	TITLE SPECIFICATION FOR MT - 482009/N OMNIDIRECTIONAL ANTENNA 5.725 – 5.875 GHz , 9 dBi		
PREP	Y.MILLER					
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	MTI WIRELESS EDGE	DWG NO	REV
A		RD41196100C	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

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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)	OAM	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.