

3.5GHz Base Station and Omnidirectional Antennas

Antenna P/N	GW-30106	GW-404007	GW-404005/H	GW-385003/NV	GW-404067/ND	GW-404014/NV	GW-404014/NH	GW-404061/NV	GW-404042/NH	GW-404066/ND	GW-404047/NH
Type	Base Station	Base Station	Base Station	Base Station	Base Station	Base Station	Base Station	Base Station	Base Station	Base Station	Base Station
Electrical					Preliminary					Preliminary	
Frequency Band	GHz	3.4-3.7	3.3-3.8	3.3-3.8	3.3-3.5	3.3-3.8	3.3-3.7	3.3-3.8	3.3-3.8	3.3-3.8	3.3-3.8
Gain	dBi (Min)	15	17 +/-0.5 (3.4-3.7)	16.5 @ 3.4-3.7	18	17 +/-0.5 (3.4-3.8)	14.5 +/-0.3	14 @ 3.4-3.8	16	16 @ 3.4-3.7	17 @ 3.4-3.8
Polarization		Vertical	Vertical	Horizontal	Vertical	Dual Slant ±45°	Vertical	Horizontal	Vertical	Horizontal	Dual Slant ±45°
Port-to-Port Isolation	dB (Min)										
AZ/EL BW	Degree	60/12	60/10	60/9	60/7	65/7.5	90/9	90/9	90/9	90/9	90/5
ETSI		N/A	CS3	CS3		SS2	CS3	CS2	CS3	CS3	SS2
Sidelobe Level	dB (Max)	-25	CS3	CS3		SS2	CS3	CS2	CS3	-27 @ 135 Deg	-17
Cross Polarization Level	dB (Max)	-18	-20	CS3	-25	SS2	-22	-23	CS3	-25	SS2
Front to Back Ratio	dB (Max)	-30	-43 (3.4-3.8)	-32	-25	-30	-26	-26	CS3	-28	SS2
VSWR 50 Ohm		1.7:1	1.7:1	1.7:1 @ 3.4-3.7	1.5:1	1.5:1	1.7:1	1.7:1	2:01	1.5:1	1.7:1
Maximum Input Power	Watt	6	6	6	6	6	6	6	6	6	6
Additional Features		Low Cost				Dual Slant	Cosecant Sqrd	Cosecant Sqrd	Null fill		
		Compact & Light					1st Null >-20dB	1st Null >-20dB			3rd Null >-18dB
Mechanical											
Size	mm	350x150x30	500x200x30	500x200x30	650x120x70	600 x 130 x 63	536x360x30	536x360x26	780x360x33	536x360x26	1000 x 210 x 63
Weight	Kg (Max)	0.7	1.5	1.5	2.5	2.5	2.3	2.3	2.8	2.3	3.2
Connector		N-Type Female	N-Type Female	N-Type Female	N type female	2 x N-Type female	N-Type Female	N-Type Female	N-Type Female	N-Type Female	2 x N-Type female
Mounting Kit		GW-120019	GW-120019	GW-120019	GW-120025	GW-120025 / A	GW-120019	GW-120019	GW-120019	GW-120019	GW-120021

** ETSI EN 301 525 V1.1.1 (2000-06)

* Most Omni antennas come in 2 versions: with N Connector for direct communication to the radio or with F connector for cable connections

Antenna P/N	GW-404048 / NV	GW-30105	GW-403019 / NV	GW-403022 / NV	GW-384002 / NV
Type	Base Station	Base Station	Base Station	Base Station	Base Station
Electrical					Preliminary
Frequency Band	GHz	3.3-3.8	3.4-3.7	3.3-3.8	3.3-3.8
Gain	dBi (Min)	17.5 @ 3.4-3.8	12	14 @ 3.3-3.7	14 @ 3.4-3.7
Polarization		Vertical	Vertical	Vertical	Vertical
Port-to-Port Isolation	dB (Min)				
AZ/EL BW	Degree	52/7	120/12	120/8	120/8
ETSI		CS3 Asymmetric	N/A	CS2	ETSI EN 302 326-3 V1.1.2. (2006-03)
Sidelobe Level	dB (Max)	-25 @ +/- 80 Deg	-25	CS2	CS3
Cross Polarization Level	dB (Max)	-25	-17	CS2	CS3
Front to Back Ratio	dB (Max)	-42	-24	CS2	CS3
VSWR 50 Ohm		1.7:1	1.7:1	1.5:1 @ 3.3-3.7	1.9:1
Maximum Input Power	Watt	6	6	0 1	20
Additional Features		Cosecant Sqrd	Low Cost		Broadband
		2nd Null >-18dB	Compact & Light		Installer selectable beam width "30"/45"/60"/90"/120"
Mechanical					
Size	mm	720x300x15	350x150x30	500x200x30	540x270x30
Weight	Kg (Max)	2.5	0.7	1.5	2
Connector		N-Type Female	N-Type Female	N-Type Female	N-Type Female
Mounting Kit		GW-120019	GW-120019	GW-120019	GW-120019

Antenna P/N	GW-402005 / N	GW-402009 / N/A	GW-403023 / N	GW-403017 / N
Type	Omni	Omni	Omni	Omni
Electrical				
Frequency Band	GHz	3.3-3.8	3.4-3.6	3.4-3.6
Gain	dBi (Min)	8.0 +/-1	9±1	10±1
Polarization		Vertical	Vertical	Vertical
AZ/EL BW	Degree	360/8	360/11	360/7
ETSI		A / N	A / N	A / N
Sidelobe Level	dB (Max)	-9 @ E-Plane	-11 @ E-Plane	-10 @ E-Plane
Cross Polarization Level	dB (Max)	-8 (EL)	-20	-20
Front to Back Ratio	dB (Max)	-	-	-
VSWR 50 Ohm		1.7:1 @ 3.4-3.8	1.7:1	1.7:1 @ 3.4-3.8
Maximum Input Power	Watt	4	6	4
Additional Features		*		
		Electrical Tilt		
Mechanical				
Size	mm	580xØ75	465xØ16	730xØ28
Weight	Kg (Max)	1.5	0.5	0.5
Connector		N-Type Female	N-Type male	N-Type Female
Mounting Kit		Included	N/A	Included

* - Both F/M Connectors

Last Update: 01/05/2008

3.5GHz Subscriber Antennas

Antenna P/N		GW-403010/S	GW-30117/N	GW-404021/S	GW-30080/A	GW-404021/ND	GW-404033/N	GW-405001	GW-405036/N	GW-385002/ND	GW-405006/N	GW-405037/N	GW-30093	GW-404040/NRH	GW-404040/NLH
Type		Subscriber	Subscriber	Subscriber	Subscriber	Subscriber	Subscriber	Subscriber	Subscriber	Subscriber	Subscriber	Subscriber	Subscriber	Subscriber	Subscriber
Electrical															
Frequency Band	GHz	3.3-3.8	3.3-3.8	3.3-3.8	3.6-4.02	3.3-3.8	3.4-3.7	3.4-3.7	3.3-3.8	3.3-3.8	3.3-3.7	3.3-3.8	3.3-3.8	3.4-3.7	3.4-3.7
Gain	dBi (Min)	12 @ 3.4-3.8	16.5 @ 3.5-3.7	17	17	17.5	18	18	18	18	19.5 -/+0.5	21 @ 3.4-3.8	24	17dBic	17dBic
Polarization		Linear V/H	Linear V/H	Dual V+H	Linear V/H	Dual Slant ± 45°	Linear V/H	Linear V/H	Linear V/H	Dual Slant ± 45°	Linear V/H	Linear V/H	Linear V/H	RHCP	LHCP
Port to Port Isolation	dB (Min)	-	-	25	-	25	-	-	-	23 (20 @ 3.7-3.8)	-	-	-	-	-
AZ/EL BW	Degree	85/85	23/23	18/18	20/20	20/20	18/18	18/18	15/15	15/15	14/14	12/12	8/8	17/17	17/17
ETSI		N/A	TS2	TS1-TS5	TS3	DN3	TS1-TS5	TS3	TS3 (3.4-3.8)	DN3	TS1-TS5 (3.3-3.6)	ETSI EN**TS1-TS3	TS1-TS5	TS1-TS3	TS1-TS3
Sidelobe Level	dB (Max)	-8 (EL)	TS2	TS1-TS5	TS3	DN3	TS1-TS5	TS3	TS3	DN3	TS1-TS5 (3.3-3.6)	TS1-TS3	TS1-TS5	-12	-12
Cross Polarization Level	dB (Max)	-	TS5	-20	TS3	DN3	TS1-TS5	TS3	TS3	DN3(DN2@3.7-3.8)	TS1-TS5 (3.3-3.6)	TS1-TS3	-25	3dB Axial Ratio	3dB Axial Ratio
Front to Back Ratio	dB (Max)	-19	TS3	-30	-30	DN3	-30	-35	TS3	-30	TS1-TS5 (3.3-3.6)	TS1-TS3	-40	-30	-30
VSWR 50 Ohm		2:1	1.7:1	2:1	1.7:1	1.5:1	1.7:1	1.7:1	1.7:1	2.0:1	1.7:1	1.7:1	2:1	1.5:1	1.5:1
Maximum Input Power	Watt	6	6	6	6	6	1	0	6	6			0	0	1
Additional Features	Indoor Antenna	Available for IAE*	Dual Pol.			Dual Slant		Diamond Shape	Available for IAE*	Dual Slant	Diamond Shape	Available for IAE*	High Gain	Circular Pol. RH	Circular Pol. LH
						Diamond Shape									
Mechanical															
Size	mm	325x92x15	190x190x30.5	305x305x25	305x305x25	305 x 305 x 25	261x261x30	286x286x25	305x305x25	305 x 305 x 15	371x371x40	450x450x36	600x600x52	305x305x25	305x305x25
Weight	Kg (Max)	0.6	0.4	1.5	1.5	1.2	1.2	1	1.2	1.2	2	3	5	1.2	1.2
Connector		SMA Female	N-Type Female	2 x SMA Female	N-Type Female	2 x N-Type Female	N-Type Female	Right Angle SMA	N-Type Fema	2 x N type female	N-Type Female	N-Type Female	N-Type Female	N-Type Female	N-Type Female
Mounting Kit		Stand Alone	GW-120018/A	GW-120018	GW-120018	GW-120018	GW-120018/A	GW-120018	GW-120018	GW-120018	GW-120018	GW-120018	GW-12001	GW-1200	GW-120018

* - For our 0.5' and 1.0' die-cast Enclosures

** - ETSI EN 302 085 V1.2.2 (2003-08)

Last Update: 01/05/2008

Environmental

Temperature Range -45 to +70 degree per IEC 68
Vibration Random 4M3 per IEC 60721
Mechanical Shock 4M3 per IEC 60721
Humidity 95% per ETSI EN300
Water Tightness Per IEC 529 IP67 (IP52 for some BTS antennas)
Salt Spray 500 hours per IEC 68
Solar Radiation 1000 hours per ASTM G53
Ice and Snow 25mm Radial
Wind Speed 160 Kmph Operation/220 Kmph Survival
Flammability UL-94HB

Notes

All specifications are subject to change without notice
Preliminary specs are for antennas under development
Upon request MTI may provide the complete spec controlled document for specific antenna

Key Features

- y High-Quality Low-Cost
- y Lightweight antenna with easy installation
- y Low profile
- y Environmental friendly
- y Various polarities
- y Various configurations such as standalone, integrated or internal component
- y Narrow and broad band
- y Meets ETSI electrical and environmental requirements
- y Very aesthetic look

Benefits

- y Provides High performance Low Cost subscriber
- y Reduces the cost of installation
- y Maintains real estate aesthetic look and value
- y Generates low wind load



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