

AN-50 System Specifications

1.1. AN-50 System Specifications

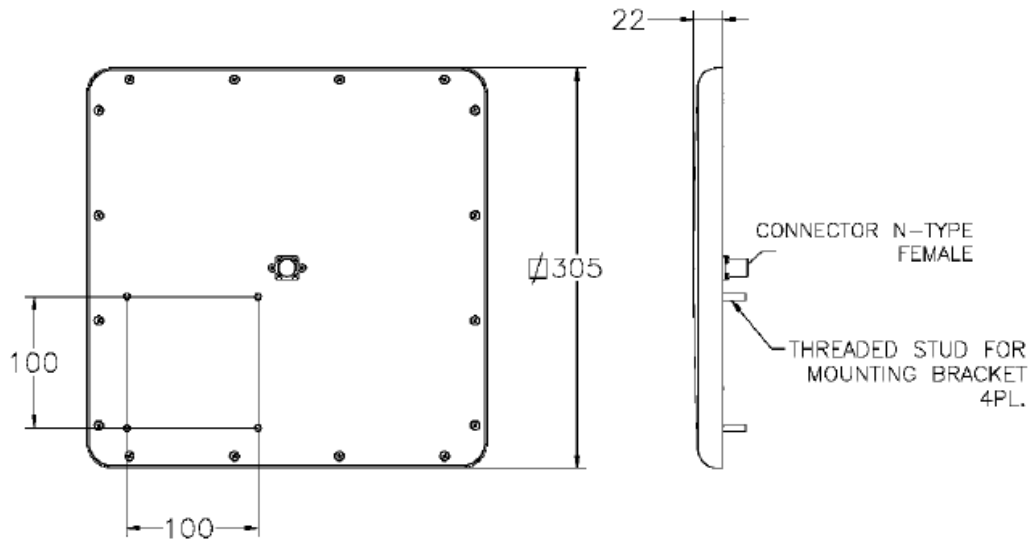
AN-50 System Specifications										
System Capability	Non-line-of-sight operations, PTP mode									
RF Band	5.725 - 5.825 GHz (UNII Band)									
Channel Center Frequencies	Channel	1	1A	2	2A	3	3A	4	4A	5
	Freq.	5.735 GHz	5.745 GHz	5.755 MHz	5.765 GHz	5.775 GHz	5.785 GHz	5.795 GHz	5.805 GHz	5.815 GHz
Channel Size	20 MHz									
RF Dynamic Range	> 50 dB									
Modulation/Throughput	Modulation	Coding Rate		Over The Air Rate (Mbps)		Modulated Burst Rate (Mbps)		Average Ethernet Rate (Mbps)		
	BPSK	1/2		12		6		4.6		
	BPSK	3/4		12		9		7.0		
	QPSK	1/2		24		12		9.3		
	QPSK	3/4		24		18		14.0		
	16 QAM	1/2		48		24		18.6		
	16 QAM	3/4		48		36		28.0		
	64 QAM	3/4		72		48		37.3		
64 QAM	1/2		72		54		42.0			
Maximum Tx Power	-5 to +20 dBm (channel dependent)									
Rx Sensitivity	-86 dBm at 6 Mbps									
IF Cable	<ul style="list-style-type: none"> Maximum length up to 250 ft (76m) using RG6U / 500 ft (152m) using high-grade RG11U Maximum allowable losses at 2.5 GHz: <ul style="list-style-type: none"> RG6: 10 dB/30m (100 feet) at 25°C RG11: 5 dB/30m (100 feet) at 25°C Multiplexed IF, DC power, control (Tx/Rx, AGC, APC) 									
Network Attributes	<ul style="list-style-type: none"> Transparent bridge DHCP passthrough VLAN passthrough 									
Modulation	Dynamic Adaptive Modulation (bi-directional) auto selects: <ul style="list-style-type: none"> BPSK QPSK 16 QAM 64 QAM 									
Over The Air Encryption	Proprietary 64-bit encryption									
Coding Rates	1/2, 3/4 and 2/3									
MAC	<ul style="list-style-type: none"> Point to point Automatic Repeat Request (ARQ) error correction Concatenation/Fragmentation 									
Range	<ul style="list-style-type: none"> Over 10 km / 6 miles non-line-of sight Over 50 km / 30 miles line-of-sight 									
Network Services	Transparent to 802.3 services and applications									
Duplex Technique	Dynamic TDD (time division duplex)									
Wireless Transmission	OFDM (orthogonal frequency division multiplexing)									
Backhaul Connection	10/100 Ethernet (RJ45)									
System Configuration	Web interface									

Power Requirements	110/220/240 VAC (auto-sensing) 50/60 Hz 39W maximum
Frequency Stability Temperature Range	AN-50 Terminal: 32F to 131F / 0C to +55C T-58: -40F to +140F / -40C to +60C
Wind Loading	AN-50 Radio: 137 mph / 220 km/hr
Physical Configuration	AN-50 terminal, AN-50 Radio (4.5 and 9 degree antennas)
AN-50 Dimensions	• 17" x 12" x 1.75" / 431.8 mm x 304.8 mm x 44.45 mm
Component Weights	AN-50 Terminal 2.0 kg T-58 Transceiver 1.0 kg Vertical Mast Bracket Kit 3.0 kg Universal Mast Bracket Kit 1.5 kg Vertical Mast Bracket Hardware Kit 0.5 kg Universal Mast Bracket Hardware Kit 0.5 kg Antenna, 9° 1.0 kg Cable, F Male/F Male, RG6, Messenger Wire, 100 ft..... 1.3 kg Antenna, 4.5°, 5.0 kg

1.2. Nine Degree Antenna Specifications

9 Degree Antenna	
Type	Planar Array
Regulatory Compliance	ETSI EN 302 085 V1.1.2 (2001-02)
Electrical	
Frequency Range	5.15-5.35 GHz and 5.725-5.875 GHz
Gain	23 dBi (min)
VSWR	1.7:1 (max)
3 dB BW	9° (typ.)
Polarization	Linear (Vertical or Horizontal)
Cross Polarization	-28 dB (max)
Sidelobe Level	ETSI EN 302 085 V1.1.2 (2001-02) Range 1TS1- TS3
F/B Ratio	-32 dB (max)
Lightning Protection	DC Grounded
Mechanical	
Dimensions	(LxWxD) 305 x 305 x 25 mm
Weight	1.5 kg
Connector	N-Type Female
Temperature (operating)	-45°C to +70°C
Wind Load (Survival)	220 km/hr
Radial Ice Load	25 mm

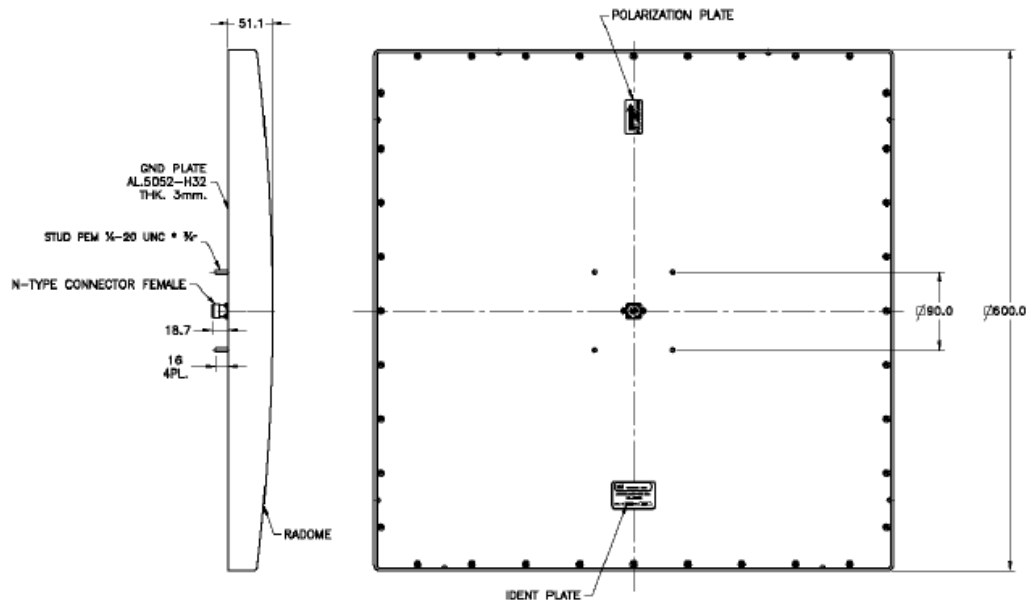
All dimensions in mm



1.3. Four Point Five Degree Antenna Specifications

4.5 Degree Antenna	
Type	Planar Array
Regulatory Compliance	ETSI EN 302 085 V1.1.2 (2001-02)
Electrical	
Frequency Range	5.25-5.85 GHz
Gain	28 dBi (min)
VSWR	1.5:1 (typ.) 1.7:1 (max)
3 dB BW	4.5° (typ.)
Polarization	Linear (Vertical or Horizontal)
Cross Polarization	-28 dB (max)
Sidelobe Level	ETSI EN 302 085 V1.1.2 (2001-02)
F/B Ratio	-40 dB (max)
Lightning Protection	DC Grounded
Mechanical	
Dimensions	(LxWxD) 600 x 600 x 55 mm
Weight	5 kg (max)
Connector	N-Type Female
Temperature (operating)	-45°C to +70°C
Wind Load (Survival)	220 km/hr
Radial Ice Load	25 mm

All dimensions in mm



1.4. Vertical Mount Dimensions

**T-58 SERIES TRANSCEIVER
VERTICAL MAST MOUNT**

Accommodates
4.5° and 9° antennas

MODEL	A	B	C
T-58-4.5	24	24	19
T-58-9	12	12	17

DIMENSIONS ARE IN INCHES

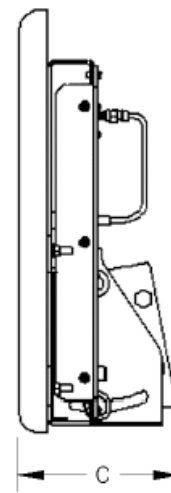
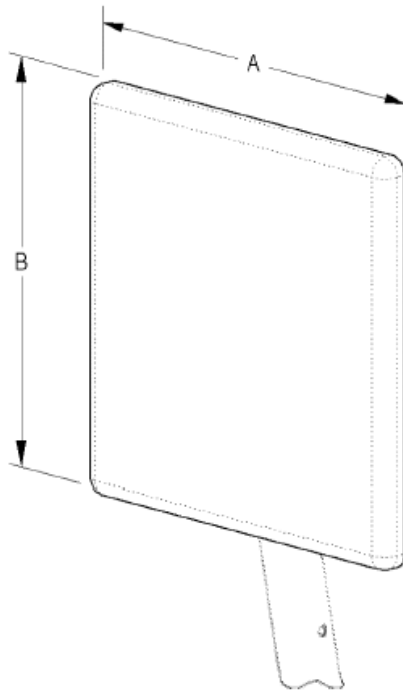
Authorized Distributor
ICTUS Gala Asia
Central Greenville 2B
Ph : 021-5603579, 5631334, 5633276
Email : sales@ichtus.co.id

1.5. Universal Mount Dimensions

**T-58 SERIES TRANSCEIVER
UNIVERSAL MOUNT**

MODEL	A	B	C
T-58-9	12	12	4.5
DIMENSIONS ARE IN INCHES			

Accommodates 9° antennas

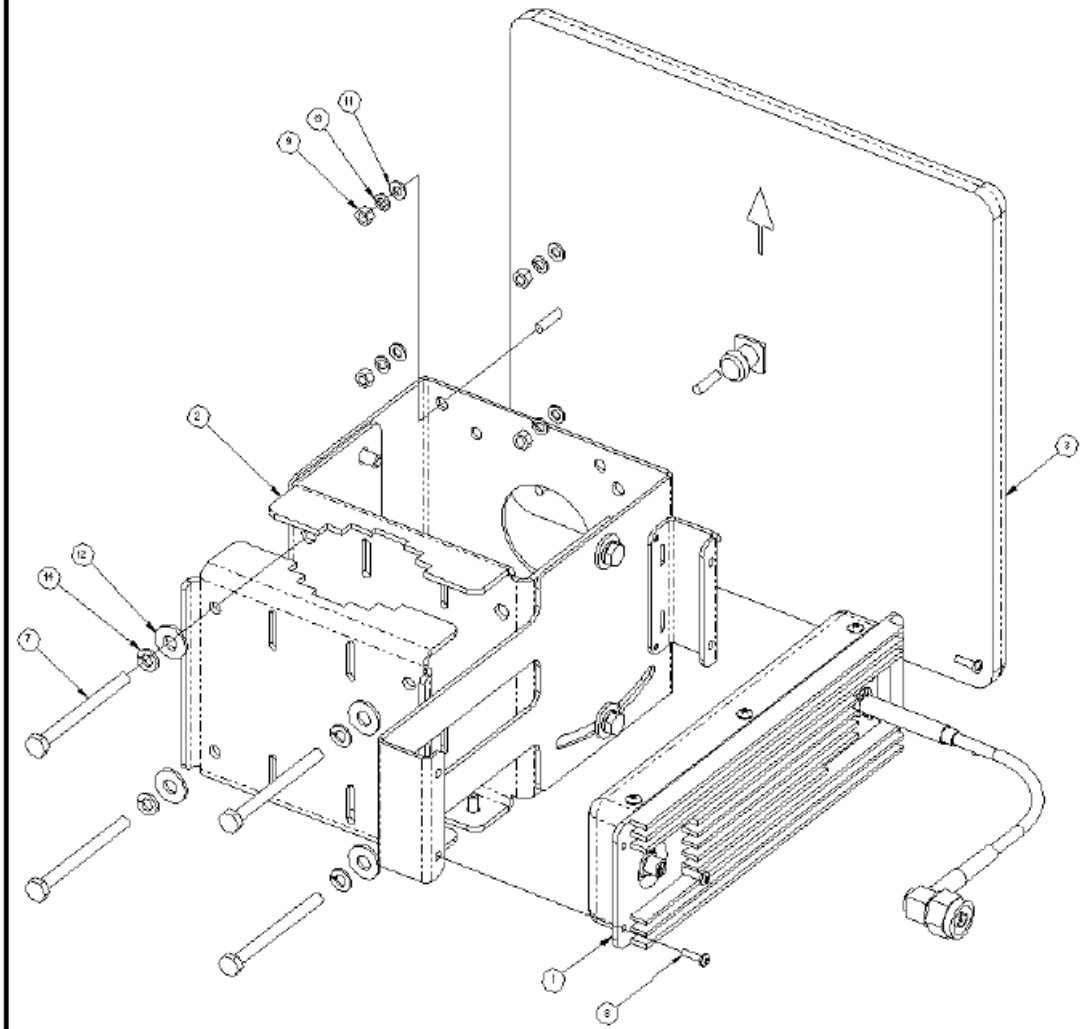


Authorized Distributor
ICHTUS Gala Asia
Central Greenville 2B
Ph : 021-5603579, 5631334, 5633276
Email : sales@ichtus.co.id

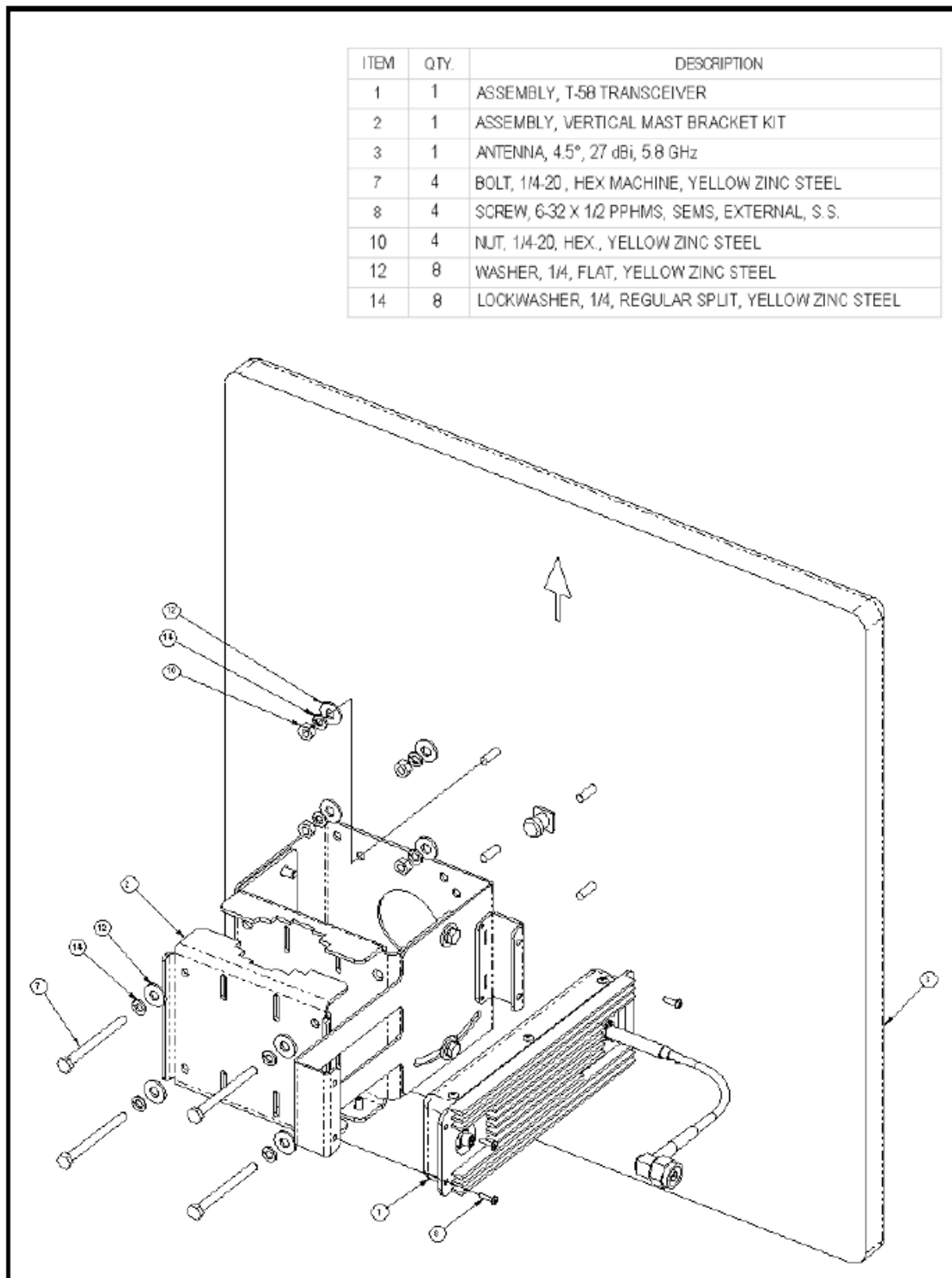
1.6. Vertical Mount Assembly

The vertical mount may be used for 4.5⁰ and 9⁰ antennas. Assembly for the 9⁰ antenna is shown here.

ITEM	QTY.	DESCRIPTION
1	1	ASSEMBLY, T-50 TRANSCEIVER
2	1	ASSEMBLY, VERTICAL MAST BRACKET KIT
3	1	ANTENNA, 9°, 23 dBi, 5.8 GHz
7	4	BOLT, 1/4-20, HEX MACHINE, YELLOW ZINC STEEL
8	4	SCREW, 6-32 X 1/2 PPHMS, SEMS, EXTERNAL, S.S.
9	4	NUT, M5, STANDARD, S.S.
11	4	WASHER, M5, FLAT, S.S.
12	4	WASHER, 1/4, FLAT, YELLOW ZINC STEEL
13	4	LOCKWASHER, M5, SPLIT, S.S.
14	4	LOCKWASHER, 1/4, REGULAR SPLIT, YELLOW ZINC STEEL



The vertical mount may be used for 4.5° and 9° antennas. Assembly for the 4.5° antenna is shown below.



1.7. Universal Mount Assembly

The universal mount may be used for 9° antennas only.

