

## Efficient Antenna Systems, Inc.

## Antenna Package Comparison Check Sheet

EASi. 4.5 meter AZ/EL Motorized/Fixed antenna package reflector	EASi	Other	Other
12 stamped 16 gauge <b>galvanized steel</b> painted <b>interchangeable</b> panels			
12 galvanized steel panel interchangeable braces			
12 galvanized steel panel interchangeable radials			
Stainless steel reflector hardware			
4 interchangeable heavy duty aluminum feed arms			
Damaged panels, radials braces and feed arms can be replaced individually			
EASi. 4.5 meter galvanized kingpost			
14" diameter galvanized .375W A53 center tube with <b>galvanized steel</b> yoke frame			
Horizontal leg ½" wall 4"x 6" square tubing <b>galvanized</b>			
Vertical leg 3/8" wall 4"x 4" square tubing <b>galvanized</b>			
Laser cut for product consistency			
Optional galvanized rear kicker adapters with adjustable azimuth location positioning			
Available for special high wind applications			
Available for load dispersion applications such as I beam frame configuration			
Can be added to package at a later date			
EASi. fixed/manual AZ/EL turnbuckle kit for fixed system			
1 ½" grade B7 threaded rods on both axis			
Elevation adjustment tube is 2 ½" square with ¼" wall thickness			
All EASi. antenna attachment/rotation points use SAE 660 bronze flanged bushings			
an El 221 unionia acumonia romaton pointo aso el 22 coo el ciele mangos e asimingo			
EASi. 90 VDC ODU Control System (30 amp, 120 VAC circuit w/disconnect req.			
90 VDC Motor drive outputs			
Dual speed motor control			
Integrated heater for temperature/dehydration purposes			
Environmentally sealed NEMA enclosure			

	EASi	Other	Othe
Joyce Dayton 10 ton Azimuth ComDRIVE Package			
10 ton machine screw ComDRIVE Dynamic 5500 lbs. Static 20,000 lbs.			
*Note: Typical standard 36 VDC actuators rated at 1500 dynamic/3000 static			
Special anti-backlash feature			
Built in digital tachometer for excellent accuracy			
*Note: 3 times the resolution per inch compared to standard 36 VDC actuators			
1 ½ HP Baldor 90 VDC outdoor rated motor			
Integrated electrical limit switches			
Integrated brush heaters			
Integrated hard stop collars Accordion weather boot			
System allows for periodic lubrication			
5,5,5,5,1,5,1,5,1,5,1,5,1,5,1,5,1,5,1,5			
Joyce Dayton 10 ton Elevation ComDRIVE Package			
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1 ½ HP Baldor 90 VDC outdoor rated motor			
Integrated electrical limit switches			
Integrated brush heaters			
Integrated hard stop collars			
Accordion weather boot			
System allows for periodic lubrication via <b>grease zerks</b>			
EASi. lightning kits Class 1 and Class 2			
Thompson Lightning Products parts including: 12" x 24" solid aluminum point blunt tip w/adapter			
Aluminum vertical connector point base			
Aluminum standard cable			
All products are UL96 rated			
Class 1 and 2 requirements sized accordingly			
L Comm Lightning Protectors			
DC-3 GHz			
Bi-directional protection			
Protector will pass DC			
Easily replaceable gas tube element Multi-Strike Capability			

RCI 2000 Programmable Antenna Controller with feed drive option	 	
Automatic positioning after programming	 	
High resolution sensor processing		
Dual speed	 	
Non-volatile memory	 	
Built in current limiting	 	
Adapti-drive		
Software limits on all axis	 	
Back up by electrical limit switches and antenna stop collars	 	
RS-422 PC control interface option	 	
KS-422 I & control interface option	 	
RCI 2000 Embedded controller option		
Controller option for installation of controller at antenna	 	
Programmable Antenna Controller with feed drive option	 	
Automatic positioning after programming	 	
High resolution sensor processing	 	
Dual speed	 	
Non-volatile memory	 	
Built in current limiting	 	
Adapti-drive	 	
Software limits on all axis	 	
RS-422 PC control interface option	 	
Outdoor NEMA enclosure	 	
RCI Web Server for RCI Controllers	 	
Automatic and manual movement operation	 	
Displays system faults and allows fault resets	 	
Compatible with most web browsers	 	
Configurable IP address for easy network configuration	 	
Seavey 4 port motorized C/Ku feed assembly	 	
Waveguide bends	 	
Factory tuned for C and Ku band performance	 	
24 VDC drive motor	 	
5K positioning pot	 	
Waveguide bends to allow installation under protective cover	 	
Other feeds and multi-feed systems available for this antenna	 	
EASi. Feed cover for Seavey feeds	 	
White weather/impact resistant cover	 	
Custom Seavey feed attachment brackets	 	
Custom anti-intrusion inserts to resist pests		
•	 	
Quintech LS4 2150/4x16A Quad 4-Way Active Splitter	 	
950-2150 MHz	 	
4x16 signal splitting with <b>zero loss</b>		
Redundant power supplies	 	
18-24 VDC	 	
1 RU	 	

Norsat 3420 PLL C band LNBs	 	
+/-2 kHz stability	 	
20K temperature	 	
62 dB gain(Typical)	 	
+12 to +24V	 	
N. A TICHOWA DI I IV. D. LLAND		
Norsat HS1027A PLL Ku Band LNBs	 	
+/-2 kHz stability 0.7 dB noise figure	 	
60 dB gain(Typical)	 	
+15-+24V	 	
113 12 7		
Microwave Filter Company 13961 WE TI filters		
Improved insertion loss performance over traditional filters	 	
Improved passband edge roll-off over traditional filters		
Aluminum body to reduce weight/stress on feed system	 	
**5G filters available**	 	
<b>EASi.</b> CUSTOM control cable (Availability subject to inventory levels)		
(UL) PLTC DIR BUR or (UL) ITC or (UL) CM C(UL) US 105'C SUN RES		
DIR BUR "ROHS II" FT-4 Suitable for wet locations	 	
Cton don'd		
Standards		
<ul><li>11.1. UL listed as type PLTC per UL standard 13</li><li>11.2. Cable is UL approved for Sunlight Resistant and Direct Burial</li></ul>	 	
11.2. Cable is the approved for Sunlight Resistant and Direct Burian 11.3. Cable is suitable for Wet Locations	 	
11.4. All materials used in the this cable are RoHS II and REACH compliant	 	
11.5. Maximum Operating Voltage: 300V RMS	 	
11.6. Made in the USA	 	
111011111100 111 1110 0011	 	
Commscope 5940R Quad RG 11 cable	 	
75 ohm	 	
14 AWG solid center conductor	 	
14 SOL CCS FPE Foil+60% AL BRD+Foil+40% AL Braid FRPVC	 	
Foam PE	 	
5 00 (1D/1000)		
5.08 (dB/100ft) attenuation at 1450 MHz Safety Standard cETL ETL	 	
CMR Non-Plenum	 	
RoHS 2011/65/EU	 	
ISO 9001 :2015	 	
100% sweep tested	 	
15 dB structural return loss @ 1000-3000 MHz	 	
EASi. Wiring kits		
Combination of RG 6 Quad feed motor control cable	 	
Feed control cable		
(UL) PLTC DIR BUR or (UL) ITC or (UL) CM C(UL)	 	
US 105'C SUN RES DIR BUR "ROHS II" FT-4 Suitable for wet locations		

Commscope 5781 RG 6 Quad	 	
75 ohm	 	
Bare copper center conductor	 	
18 SOL BC FPE Foil+60% AL BRD+Foil+40% AL BRD FRPVC	 	
CMG	 	
cETL ETL		
7.49 (dB/100ft) attenuation at 1450 MHz		
RoHS 2011/65/EU	 	
ISO 9001 :2015	 	
15 dB structural return loss @ 1000-3000 MHz	 	
Installations of EASi systems including controller programming Assembly of the following to specification:	 	
Kingpost	 	
Actuators or turnbuckle systems		
Low voltage wiring of all required outdoor systems EASi supplied		
Feed assembly with filters and LNBs.	 	
Complete reflector assembly with integration to kingpost	 	
Low voltage wiring of all required indoor systems EASi supplied	 	
Termination of all RF	 	
Setup of all hard and soft limits	 	
Antenna aiming and/or programming of antenna controller	 	
income anima and or programming or uncome controller	 	

## EASi. 4.5 De-Ice Options:

Clearsat Vinyl snow shield

Walton Kynar snow shield/opt. rain/ice quake/electric or gas heat Walton Tedlar snow shield/opt. rain/ice quake/electric or gas heat Walton Sefar snow shield/opt. rain/ice quake/electric or gas heat

RTI active rear mounted systems in multiple configurations
Walton rear mounted systems in multiple configurations
Gas and or electrical systems may require Walton tech to certify.

**EASi. communication** options for antenna control

RCI Web Server

Compusat type automation and control

## **Electrical Considerations for system installation:**

All electrical services/connections to be completed by local licensed electrician
Electrician to be provided by buyer unless other arrangements made
90 VDC systems require 30 amp single phase 115 VAC circuit w/disconnect

De-ice systems require applicable electrical service based on system\*\*\*

Typical full coverage requires 208 3 phase 40 amp service

Disconnect may be required

GFI circuit may be required

All electrical services to be available at antenna location before or at time of install

\*\*\*Electrical and/or gas service based on de-ice system chosen.