TRACKER 01

ANTENNA AIMING SYSTEM

- The antenna aiming system consists of a **BEACON TX GPS** transmitter (AIR) that periodically emits its GPS coordinates and barometric height to the **BEACON RX GPS** (EARTH) GPS base unit, which consists of a control unit, a control unit of YAESU rotors and two YAESU engines (Azimut and elevation) , in addition to the necessary wiring and hardware.

- The **BEACON RX GPS** Base Unit, based on local and remote information, generates the control signal that allows the azimuth and elevation position motors to be automatically activated to point towards the transmitter position.

SERVICIOS DE RADIO WAVENET, S.L. Polígono Industrial Requena, Nave 79 – 45214 Cedillo del Condado (Toledo) - España
Teléfono: (+34) 925 508 791 E-mail: wavenet@wavenetradio.com - www.wavenetradio.com

TRACKER 01

ANTENNA AIMING SYSTEM

TECHNICAL SPECIFICATIONS:

GPS Beacon TX

Frequency Generation:	Through digital synthetizer controlled by PLL
Transmission Frequency:	Programmable between 880 and 915 MHz according to UN-41 standard with 250 KHz jumps
Number of channels:	Up to 200 programmable
Modulation:	4GFSK
Output power:	Greater than or equal to +27 dBm on load of 50 Ω
RF output connector:	SMA female on the back of the equipment
RF output impedance:	50 Ω
Frequency stability:	Greater than +/- 1 ppm of -10°C to +50°C
Bandwidth:	250 kHz
Spurious emissions :	Better than -60 dBc
Power supply:	VDC continuously de 6-12V, circular connector, series 711 male 2 pin with screw closure (Binder)
Consumption:	Less than 7W
Thermal range:	-10°C to +50°C
Ventilation:	1 fan for forced convection
Protections:	Polarity reversal in VDC power
Activ GPS antenna connector:	SMA female
Transmission indication:	LED
Enclosure:	Mechanized in aluminum
Dimensions:	200x68x33 mm
Weight:	200 gr
Conmutador ON/OFF	

GPS Beacon RX

Frequency Generation:	Through digital synthesizer controlled by PLL
Transmission Frequency:	Programmable between 880 and 915 MHz according to UN-41 standard with 250 KHz jumps
Number of channels:	Up to 200 programmable
Modulation:	4GFSK
Sensitivity:	-110 dBm for a reception without loss of data
RF input impedance:	50 Ω
Input RF connector:	N female on the back of the equipment
Frequency stability:	Greater than +/- 1 ppm from -10°C to +50°C
Bandwidth:	250 KHz
Power supply:	VDC continuosly from 9 to 12V XLR4-M (pin 1 GND, pin 4 +)
Indications:	- Power supply: 1 LED (ON) - System configured / in operation: 1 LED (POWER) - Data reception from remote station: 1 LED (Rx)
Menu Selection:	Through 4 buttoms
Consumption:	Less than 3W
Thermal range:	-10°C to +50°C
Visualization and configuration:	Through backlit LCD screen of 2x16 characters that shows at least visulaization and configuration off.
Manual or automatic menu:	- Manual menu: selection of compass or motor movement with buttoms: 2 for azimut / 2 for elevation - Automatic menu: selection of remote or local information
Activ GPS antenna connector:	SMA female
Control connection YAESU G-5500	Connector SubD 15 female
Enclosure:	Machined in aluminum
Dimensions:	210x210x55 mm
Weight:	1 kg

Rotor Yaesu G5500

Power:	240 VAC, 50-60 Hz
Consumption:	120 VA
Rotor voltaje:	24 VAC
Cables for the rotor:	6 x 0,5 + 6 x 0,5
Rotation time (no load):	Elevation (180°): 67 sec to 60 Hz
0 Azimuth (360°):	Azimuth (360°): 58 sec to 60 Hz
Rotation range:	Elevation: 180°
0 Azimuth:	Azimuth: 450°
Rotation torque:	Elevation: 1,400 kgf-cm
0 Azimuth:	Azimuth: 600 kgf-cm
Brake torque:	Elevation : 4,000 kgf-cm
0 Azimuth:	Azimuth: 4,000 kgf-cm
Maximum vertical load:	Elevation: 30 kg or less
0 Azimuth:	Azimuth: 440 Lbs. (200 kg) or less
Outside diameter mast:	38 a 63mm
Outside diameter boom:	32 a 43mm
Brake type:	Mechanical and electrical limit switches
Loading Surface to the wind:	1.0 m^2 or less
Maximum work cycle:	5 minutes
Thermal range:	0°C a +40°C (Controller) -20°C to +40°C (Rotator)
Dimensions rotor:	254 x 349 x 190 mm
Weight rotor:	9 kg
Dimensions torque:	200 x 130 x 193 mm
Weight torque:	3 kg

Specifications subject changes without notice

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