

APS710 Antenna Control Unit

1. APS 700 Indoor Controller

1.1. with integrated Spectrum analyzer & Tracking Receiver

2. Outdoor Cabinet

1. APS 700 Indoor Controller

- Industrial grade PLC with 800 MHz ARM Cortex A9 CPU and 256 MB RAM + 256MB Flash
- 7" Touchscreen

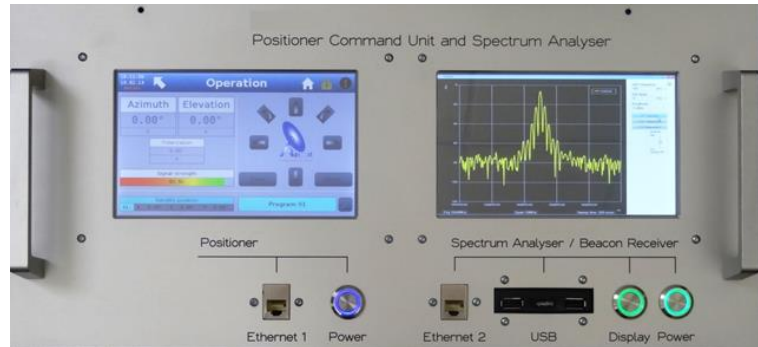


1.1. Integrated Spectrum Analyzer & Tracking Receiver

- 7" Touchscreen Display
- Frequency Range: 1 Hz to 4,4 Ghz
- Amplitude: -151 dBm to +10 dBm
- Accuracy: 0.25 dB relative accuracy
- Resolution Bandwidth: 0,1Hz to 250 kHz and 5 MHz
- Frequency Selection: min. 100 Hz Steps
- LNB Power: max 500mA via power injector
- Communication Interfaces:
 - USB: Software Upgrade, Local Control with Keyboard & Mouse(Spectrum Analyzer)
 - Ethernet: Graphics User Interface, Remote Antenna Control, Communication with Beacon & DVB-S2 Receiver
 - BNC: (Analog Interface -10V to +10V): Beacon receiver, configurable flank
 - RS232: Beacon Receiver
 - RF In: L-Band Input to Spectrum Analyser
 - RF Out: Interface to client receiving equipment



- CAN-BUS: Communication via CAN Cable with positioner & the Outdoor Cabinet, Cable length up to 500m
 - Wi-Fi(opt.): Integrated Wi-Fi Router for Wireless Communication to ODU
 - Optical(opt.): Fiber Optic Communication with positioner & the ODU Cabinet(SingleMode, MultiMode, various interfaces)
- 19" 5 RU Rack Mount Chassis.
 - Power Supply: 110-240V AC, max 1,5 A (depending on configuration)
 - Size: 490 x 300 x 220mm(LxWxH)
 - Weight: approx. 8kg
 - Operation Temperature: 0° to 50°C
 - Humidity: 20 - 80% (non-condensing)

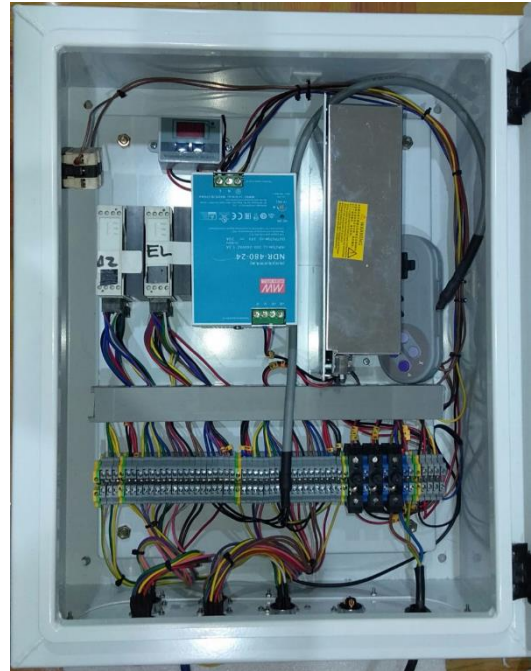


2. Outdoor Cabinet

- Motor & Electronics Power supplies
- Intelligent Motion Control Units(iMCU) with variable Speed & Acceleration Control
- For 24 – 60V DC & Brushless DC Motors
- Motor Power up to 800W per axis
- ServoController(opt.) for BLDC & AC Servomotors
- For 24V – 60V BLDC & 230V/400V AC Servomotors(opt.)
- Motor Power up to 15kW per axis
- High resolution Encoder inputs for optic or magnetic encoders
- ODU Climatisation
- Installation Handheld device for Manual movement during installation & maintenance
- Communication Interfaces



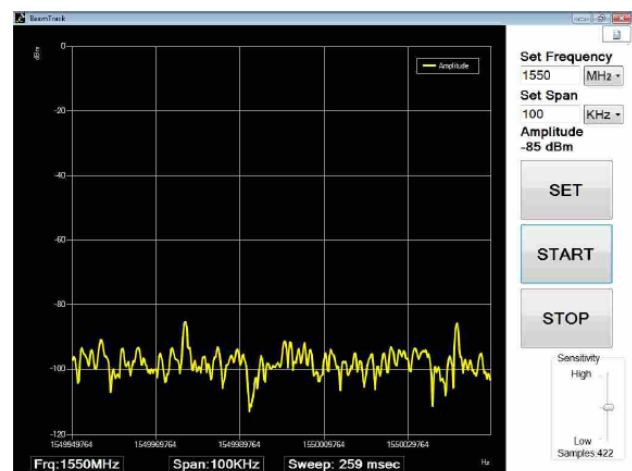
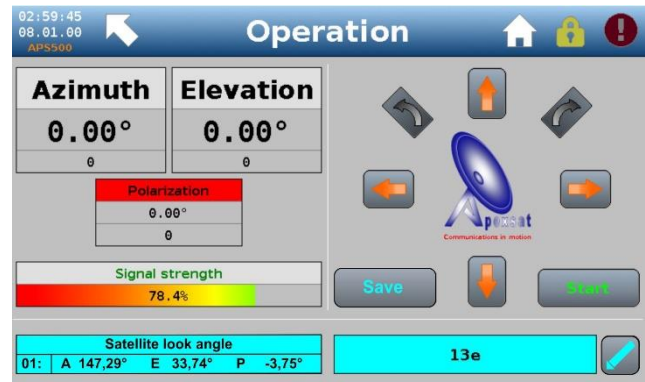
- Motor Interface: Interface to Positioner(Az, El & Pol Motors, Encoders & Limit switches)
- Polarization Switch(opt.)
- Revolver Interface opt.)
- CAN-BUS: Communication via CAN Cable to APS700 Indoor Controller, cable length up to 500m
- Optical(opt.): Fiber Optic Communication with APS700 IDU (SingleMode, MultiMode, various interfaces)
- Wi-Fi(opt.): Integrated Wi-Fi Router for Wireless Communication to APS00 Indoor Unit
- Power Requirement
 - DC & BLDC Motors: 110-240V AC, up to 1200W
 - DC & AC Servomotors: 110-240V AC, up to 30kW, 400V AC 3ph(opt.)
- Cabinet: powder painted steel, IP 65 protected
- Size: typical 600 x 500 x 210mm, other sizes possible
- Weight: approx. 35 kg, depending on configuration
- Operation Temperature: -30° to 50°C
- Humidity: 100% (condensing)



Features

- Control via 7" Touchscreen
- 7 Axis Antenna control
 - Azimuth & Elevation + 4 Polarizations & 1 Revolver (Multifeed Revolver)
- 99 Satellite position store
- Automatic satellite pointing based on Positioner Location(GPS)
- Controller Options
 1. Tracking
 2. Autopointing

3. Polarization Switch
 4. Modbus over TCP
 5. Revolver
 6. Externals Sensors
1. Tracking(opt.) of Inclined Orbit Satellites
 - 4 Different tracking algorithms
 - Program Track
 - Time Track
 - Signal Track
 - Optimized Track
 - Communication via Analog(Voltage) interface with Beacon & DVB Receiver with AGC output
 - Digital(Ethernet) Interface for Beacon Receivers & DVB- DVB-S2 Receivers
 - Serial Commutation interface for Command / Control of Integrated Spectrum analyzer/Tracking Receiver
 - Display / Analysis of DVB & Beacon Signals
 - Peak Signal Transmission to APS700 ACU
 - Tracking of DVB Carriers
 - Tracking of CW Beacon Signals (requires PLL LNB)
 - Search & Scan algorithm for wideband satellite detection
 - Add-on Controller(opt.) for LEO/MEO tracking
2. Autopointing upgrade(opt.) for Automatic satellite acquisition
 3. Polarization Switch(opt.) for Feed polarization changes
 - Can be utilized for circular polarized Feeds (C, X, Ku, Ka)
 - Works with GIML/A Polarization Drive & Rotary Joint



- Switching in-between LHCP, Linear & RHCP and vice versa.
4. Remote Control via WebGUI, same UI, same features as touchscreen
 - Remote Control via Modbus over TCP(opt.) Integration of APS700 Antenna Control unit into a multisystem NMS or external Control Device.
 - Special Remote 10Hz IPM Mode for UAV tracking
 5. Multifeed Revolver Control(opt.) for Multiband Antennas equipped with GIML/A Revolver and various feeds
 - Including Single Feed polarization motorization control for every feed
 6. Externals Sensor upgrade(opt.) for ODU temperature control, humidity supervision etc.

APS710 ACU Schematics

