

APS700 Standard Antenna Control Unit

1. APS 700 Indoor Controller

2. Outdoor Cabinet

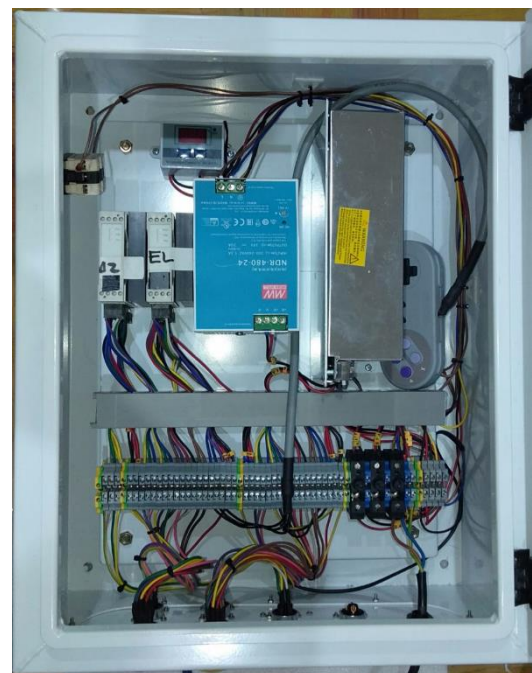
APS 700 Indoor Controller

- Industrial grade PLC with 800 MHz ARM Cortex A9 CPU and 256 MB RAM + 256MB Flash
- 7" Touchscreen
- Communication Interfaces:
 - USB: Software Upgrade
 - 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
 - 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)
- Power Supply: 110-240V AC, max 0,4 A (depending on configuration)
- 19" 4 RU Rack Mount Chassis.
- Size: 490 x 140 x 177mm(LxWxH), optional 2RU version
- Weight: approx. 5kg
- Operation Temperature: 0° to 50°C
- Humidity: 20 - 80% (non-condensing)



Outdoor Cabinet

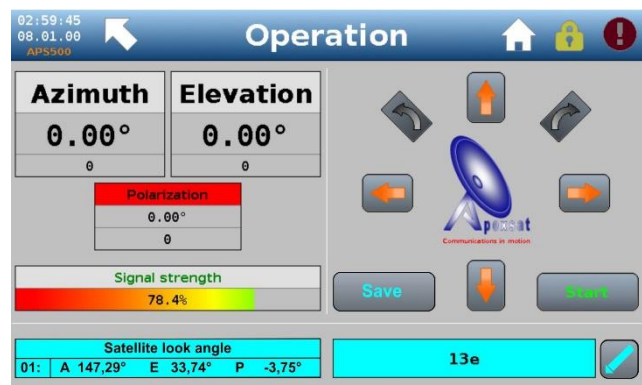
- Motor & Electronics Power supplies
- Intelligent Motion Control Units(iMCU) with variable Speed & Acceleration Control
- For 24 – 60V DC & Brushless DC Motors
- Motor Power up to 800W per axis
- ServoController(opt.) for BLDC & AC Servomotors
- For 24V – 60V BLDC & 230V/400V AC Servomotors(opt.)
- 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(RS232 & Ethernet) Interface for Beacon Receivers & DVB- DVB-S2 Receivers
- 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.

APS700 ACU Schematics

