THE FAA NEXT GENERATION ILS

- Meets all FAA and ICAO requirements
- Available in all single and dual frequency configurations
- Wide range of antenna options available
- Built-in RMM and complete remote control capability
- Compatible with co-located DME
- Supports FAA RMM protocol

ILS 420 Instrument Landing System
**ILS 420 Instrument Landing System**

**KEY FEATURES**
- Monitor utilizes super heterodyne receiver technology for improved reliability and stability
- Full solid state transmitter switching improves reliability and reduces attenuation
- CAT I, II, and III versions available with a wide variety of antenna configurations to meet specific siting requirements

**Safety**
- Software certified to RTCA DO-178B/ED-12
- Triple redundant control logic implemented in hardware devices for increased integrity
- Automatic Integrity Test (AIT) validates the monitoring hardware and software at regular intervals

**Ease of Maintenance**
- Simplified maintenance using LCD front panel display allows control actions and data viewing without a PC
- Common modules used between LOC and GS to reduce spares
- Mean Time To Repair (MTTR) under 20 minutes

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**TECHNICAL CHARACTERISTICS**

### System
- **Coverage**
  - Course: 25 nm / ± 10°
  - Clear: 17 nm / ± 35°
- **Course width**: 2.5° to 6° adjustable
- **Glide angle**: ±0.24°
- **Course stability**: < ±1 m (typical)

### Localizer
- **Frequency**
  - Range: 108 to 112 MHz
  - Stability: < 0.0005 %
- **Course/clearance frequency separation**: 8 kHz ± 0.01 %
- **CSB power output**
  - Course: 0 to 17 watt
  - Clear: 0 to 5 watt
- **Spurious/harmonics**: 60 db down
- **Modulation frequency accuracy**: ±0.01 %
- **SDM stability**: ±0.3 %
- **DDM stability**: ±0.003 DDM
- **Total harmonic distortion**: < 1 %
- **CSB/SBO RF phase alignment**: 0° to 359°

### Glide Slope
- **Course width**: 2.5° to 6° adjustable
- **Glide angle**: ±0.24°
- **Course stability**: < ±1 m (typical)

### Transmitter
- **Frequency**
  - Range: 328 to 336 MHz
  - Stability: < 0.0005 %
- **Course/clearance frequency separation**: 8 kHz ± 0.01 %
- **CSB power output**
  - Course: 0 to 17 watt
  - Clear: 0 to 5 watt
- **Spurious/harmonics**: 60 db down
- **Modulation frequency accuracy**: ±0.01 %
- **SDM stability**: ±0.3 %
- **DDM stability**: ±0.003 DDM
- **Total harmonic distortion**: < 1 %
- **CSB/SBO RF phase alignment**: 0° to 359°

### Monitoring
- **RF-level measurement stability**: ± 3 %
- **DDM measurement accuracy** (DDM=0)
  - ± 0.002 DDM
- **SDM measurement accuracy**: ± 1.0 %

### Environmental Conditions Indoor
- **Ambient temperature**: -10°C to 55°C
- **Relative humidity**: Max. 95 % (-10 to 35°C), Max. 60 % > 35°C

### Environmental Conditions Outdoor
- **Ambient temperature**: -50°C to 70°C
- **Relative humidity**: Up to 100 %
- **Wind**: Operational up to 160 km/h, survivability 200 km/h
- **Ice**: Up to 1.25 cm

### Power Supply
- **Input voltage**: 115 to 230 VAC, 48 to 64 Hz
- **Battery voltage**: 24 V Nominal
- **Battery backup**: up to 6 hours of uninterrupted operation

### Safety
- **Mean time between outages**: 26,000 hours
- **Integrity**: 2.9 \times 10^{11}
- **Continuity of service**: 2.5 \times 10^7
- **Availability**: 99.99 %
- **Mean time to repair**: < 20 minutes

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