# TELESTE ACE AMPLIFIER MODULES

## AC 625X RETURN PATH MODULES

AC625x modules are used on return path channel in AC/ACE series amplifiers. These modules contain slope adjustment, low pass filtering and response correction.

- AC6250/-51/-52 are used in AC1500/2500 amplifiers
- AC6254/-55/-56/-57 are used in AC3010/3210/ACE3 amplifiers

| AC625X RETURN PATH MODULES | | |
|---|---|---|
| AC6250 | 5…65 MHz | AC1500 & AC2500 |
| AC6251 | 5…85 MHz | AC1500 & AC2500 |
| AC6252 | 5…204 MHz | AC1500 & AC2500 |
| AC6254 | 5…65 MHz | AC3x10 & ACE |
| AC6255 | 5…85 MHz | AC3x10 & ACE |
| AC6256 (3 dB base slope) | 5…204 MHz | AC3x10 & ACE |
| AC6257 (0 dB base slope) | 5…204 MHz | AC3x10 & ACE |
| **PARAMETERS** | | |
| Current need | mA | < 2 |
| Dimensions | mm | 42 x 37 x 11 |

## AC 6915 RIS RECEIVER

AC6915 is a RIS receiver module for remote control of ingress switches. It is compatible with intelligent 1.2 GHz ACx and ACE amplifiers.

- Compatible with AC3010, AC3210 and ACE3 amplifiers
- Plug-in unit with no additional cables
- Front panel led for RIS status
- RIS (Remote Ingress Switching) receiver with automatic scanning
- 0 dB / -6 dB / <-50 dB ingress switch control

| RIS DATA LINK | | |
|---|---|---|
| Data rate | bps | 9380 |
| Modulation method | | FSK, Δf = ±25 kHz |
| Channel bandwidth | MHz | 0.2 |
| Downstream frequency range | MHz | 115…130 and 245…260 |
| Scanning step | MHz | 0.25 |
| Recommended carrier level at amp output | dBµV | 90…105 |
| **GENERAL** | | |
| Power consumption | W | 0.2 |
| Dimensions | mm | 68 x 55 x 9 |
| Operating temperature range | | see platform specifications |
| EMC | | EN 50083-2 |

# AC 6918 ALSC UNIT WITH RIS RECEIVER

AC6918 is a pilot measurement module for enabling automatic gain and slope control. It is compatible with intelligent 1.2 GHz ACx and ACE amplifiers.


- Compatible with AC3010, AC3210 and ACE3 amplifiers
- Plug-in unit with no additional cables
- Front panel leds for RIS and ALSC status
- Fast and accurate level measurement unit can measure any forward path channel level with selectable peak / average detection
- ALSC pilot frequencies are user programmable with automatic reserve pilot switching; full gain and slope control with two pilots, automatic switching to gain-only control with only one pilot
- Does not support plug-and-play single button automatic alignment. Forward path output levels should be first adjusted manually before enabling ALSC. Return path can then be automatically aligned.
- RIS (Remote Ingress Switching) receiver with automatic scanning
- 0 dB / -6 dB / <-50 dB ingress switch control

| PILOT MEASUREMENT AND ALSC | | |
|---|---|---|
| Measurement range | MHz | 160…1218, 0.25 MHz steps |
| Measurement bandwidth | MHz | 0.6 |
| Measurement inaccuracy | dB | < 1.0 |
| Dynamic range | dBµV | 80…115 |
| Pilot type | | Analog / Digital |
| **RIS DATA LINK** | | |
| Data rate | bps | 9380 |
| Modulation method | | FSK, Δf = ±25 kHz |
| Channel bandwidth | MHz | 0.2 |
| Downstream frequency range | MHz | 115…130 and 245…260 |
| Scanning step | MHz | 0.25 |
| Recommended carrier level at amp output | dBµV | 90…105 |
| **GENERAL** | | |
| Power consumption | W | 0.5 |
| Dimensions | mm | 80 x 55 x 20 |
| Operating temperature range | | see platform specifications |
| EMC | | EN 50083-2 |

# AC 6981 DOCSIS TRANSPONDER

AC6981 is a DOCSIS 3.1 frequency range compatible DOCSIS transponder. Compatible with 1.2 GHz ACx and ACE amplifiers and nodes.


- Compatible with 1.2 GHz platforms: AC3010, AC3210, AC8710, AC8810, AC9100, ACE3 and ACE8
- Plug-in unit with no additional cables
- Lid status monitoring with light sensor
- Pushbutton for true Plug-and-Play: full automatic alignment of both forward and return path signal paths
- DOCSIS/EuroDOCSIS 2.0 transponder
- Remote monitoring and control of all parameters
- Remote update of transponder and platform embedded software
- Standard DOCSIS SNMP MIBs for DOCSIS management
- Amplifier/node management via SCTE HMS / Teleste enterprise MIBs
- Supports remote Teleste TSEMP management allowing more sophisticated management features such as measurement logging with CATVisor tools

| COMMUNICATION | | |
|---|---|---|
| Protocol | | DOCSIS/EuroDOCSIS 2.0 |
| Downstream frequency range | MHz | 93…858 |
| Upstream frequency range | MHz | 5…65 |
| Downstream input level range | dBµV | 68…98 |
| Equivalent forward path output level | dBµV | 84…114 |
| Upstream output level range | dBµV | 67…117 |
| Equivalent full gain return path input levels | dBµV | 30…80 |
| **FORWARD PATH RF LEVEL MEASUREMENTS: ALSC AND SPECTRUM ANALYSER** | | |
| Forward path measurement range | MHz | 50…1218, 0.25 MHz steps |
| Measurement bandwidth | MHz | 0.35 |
| Measurement inaccuracy | dB | < 1.0 |
| Dynamic range | dBµV | 80…120 |
| Detection mode | | Analog/Digital |
| **RETURN PATH RF LEVEL MEASUREMENTS: INGRESS BUSTER** | | |
| Return path measurement range | MHz | 5…204, 0.25 MHz steps |
| Measurement bandwidth | MHz | 0.35 |
| Measurement inaccuracy | dB | < 1.5 |
| Dynamic range | dBµV | 20…75 |
| Detection mode | | Analog / Digital |
| **GENERAL INFORMATION** | | |
| Power consumption | W | 3.8 |
| Supply voltages | V | +12 / 280 mA<br>+24 / 20 mA |
| Dimensions (h x w x d) | mm | 80 x 52 x 21 |
| Weight | kg | 0.2 |
| Operating temperature range | °C | see platform specifications |
| ÊMC | | EN 50083-2 |

# AC 6992 TRANSPONDER

AC6992 is a DOCSIS 3.1 frequency range compatible CATVisor / HMS transponder. Compatible with 1.2 GHz ACx and ACE amplifiers and nodes.

- Compatible with AC3010, AC3210, AC8710, AC9100, ACE3 and ACE8
- Plug-in unit with no additional cables
- Lid status monitoring with light sensor
- Pushbutton for true Plug-and-Play: full automatic alignment of both forward and return path signal paths
- Frequency agile SCTE 25-1 (HMS005) compatible RF modem with extended forward and return path frequency ranges
- Supports both CATVisor and HMS compatible MAC layer
- Allows remote monitoring and control of all parameters
- Remote download of platform embedded software

| RF MODEM | | |
|---|---|---|
| Data rate | bps | 38400 |
| Modulation method | | FSK, f = 67 kHz |
| Channel bandwidth | kHz | 400 |
| Downstream frequency range | MHz | 80…88<br>108…132<br>160…176<br>216…264 |
| Upstream frequency range | MHz | 5…65 MHz |
| Frequency raster | MHz | 0.1 |
| Frequency inaccuracy | kHz | < 10 |
| Downstream input level range | dBµV | 60…90 |
| Upstream output level range | dBµV | 75…104 |
| Transmit power delta (“0” vs. “1”) | dB | < 1 |
| Transmitter spurious (Tx on) | dBc | < -55 |
| Transmitter spurious (Tx off) | dBµV | < 25 |
| Off state attenuation | dB | > 60 |
| **FORWARD PATH RF LEVEL MEASUREMENTS: ALSC AND SPECTRUM ANALYSER** | | |
| Forward path measurement range | MHz | 50…1218, 0.25 MHz steps |
| Measurement bandwidth | MHz | 0.35 |
| Measurement inaccuracy | dB | < 1.0 |
| Dynamic range | dBµV | 80…120 |
| Detection mode | | Analog/Digital |
| **RETURN PATH RF LEVEL MEASUREMENTS: INGRESS BUSTER** | | |
| Return path measurement range | MHz | 5…204, 0.25 MHz steps |
| Measurement bandwidth | MHz | 0.35 |
| Measurement inaccuracy | dB | < 1.5 |
| Dynamic range | dBµV | 20…75 |
| Detection mode | | Analog / Digital |
| **RETURN PATH PILOT GENERATOR** | | |
| Number of pilots | | Up to 4 |
| Pilot frequency range | MHz | 5…65, 0.1 MHz steps |
| Pilot level range | dBµV | 75…100 |
| Pilot level inaccuracy | dB | < 1.5 |
| Spurious tones | dBc | < -50 |
| **GENERAL INFORMATION** | | |
| Power consumption | W | 3.8 |
| Supply voltages | V | +12 DC / 280 mA<br>+24 DC / 20 mA |
| Dimensions (H x W x D) | mm | 80 x 52 x 21 |
| Weight | kg | 0.2 |
| Operating temperature range | °C | see platform specifications |
| EMC | | EN 50083-2 |

## ACE601/-2/-3 POWER SUPPLY

ACE601, ACE602 and ACE603 power supplies can be used in optical nodes and amplifiers of ACE series (ACE3, ACE8...).

- Complete power supply kits for replacing the existing PSU with a new one
- All necessary accessories are included
- Can be used in optical nodes and amplifiers of ACE series (ACE3, ACE8...)

| SPECIFICATIONS | | |
|---|---|---|
| Input voltage (ACE601) | V | 27...65 AC |
| Input Voltage (ACE602) | V | 205...255 AC |
| Input voltage (ACE603) | V | 40...90 AC |
| Efficiency | | > 75 % |
| Output voltage 1 | V | 24 DC, 900 mA max. |
| Output voltage 2 | V | 12 VDC, 700 mA max. |
| Ripple voltage | mV | < 20 |
| EMC | | EN 50083-2 |
| Safety | | EN 60728-11 |
| Mechanics | | Fits into the ACE housing |