

# AG1518Plus-16

## 16x FTA Tuner to IP Gateway



AG 1518Plus-16 is a high-density, modular and FTA/BISS decryption professional TS processor equipped with 16 independent tuners, which can be either of DVB-T/ T2, DVB-S2X/S2/S, DVB-C, ATSC or ISDB-T types.

AG 1518Plus-16 DVB-S/S2/S2X Tuner to IP Gateway is a head-end interface conversion device and Routes Any or All Transport Streams via IP Output Port by SPTS/MPTS channels, and support optional two different tuners input in one device.

It is integrated with tuner demodulation (or ASI input) and gateway function, which can demodulate the signal from 16 tuners into IP package, or directly convert the TS from DVB-ASI, then output the IP package through different IP address and ports. BISS function is also embedded for tuner input to descramble your tuner input programs.

AG 1518Plus-16 enables an all-IP headend architecture, resulting in a more scalable and lower-cost transition to IP-based services. This is an ideal solution for environments where you have a large number of air Channel, and used largely to Medium-Scale IPTV, Hotel, entertainment facilities, or any kinds of Source signals convert to Cable TV broadcast environments in limited budget severely.

### Features

- 16\*FTA Tuners Input. Supports variety of input DVB-S/S2/S2X/T2/T/C/ISDB-T/ATSC options
- Support DisEqc function
- 16 MPTS or 512 SPTS output (MPTS and SPTS output switchable)
- BISS-0, BISS-1 and BISS-E decryption
- IP Output: IP-UDP, RTP/RTSP
- SPTS Mode enable One MPEG-TS to Distribute Two Separate Multicast streams Output In GbE1, GbE2 Ports
- MPTS Mode enable One MPEG-TS to map One Multicast streams outputs In either GbE1 or GbE2 Port
- SPTS Mode allow PID filtering, re-mapping, PSI/SI to rebuilding and editing
- optional two different tuners input in one device, like DVB-S2/S2X + DVB-T/T2, DVB-S2/S2X + ISDB-T, etc.
- Easy-to-Use System Management via Web-GUI
- Breakthrough price and Quality
- For professional 24/7 Non stop operation
- High density, compact 1-RU platform saves rack space and reduces operating cost

### Main Application

- Converting the content of 16\*FTA satellite transponders to IP streaming
- Upgrade all your analog Head-ends to digital TV Solution
- Enterprise, Hotel, campus, hospital, Public Place
- Huge FTA Channels to collect in Limited budget

## Input Interfaces

16 FTA Tuners In/Loop Out, selectable DVB-S/S2/S2X, DVB-T(T2), DVB-C, ISDB-T, ATSC

F-female type Connector

2 Separate DVB-ASI

75 Ω , BNC type, 188Bytes, ≅150Mbps

ASI bitrate 200Mbit/s

Output Level 800mVpp Nominal

## DVB-S/S2 Mode Version 1

Input Frequency 950-2150Mhz  
 Symbol rate 1~45Mbauds  
 FEC Demodulation 1/2, 2/3, 3/4, 5/6, 7/8(DVB-S QPSK)  
 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10  
 (DVB-S2 QPSK/8PSK)  
 Demodulation Mode QPSK, 8PSK(Only for DVB-S2)

## DVB-S/S2/S2X Mode Version 2

**DVB-S**  
 Input Frequency 950-2150Mhz  
 Symbol rate 0.5~45Mbauds  
 Signal Strength -65 ~ -25dBm  
 FEC Demodulation 1/2, 2/3, 3/4, 5/6, 7/8(DVB-S QPSK)  
 Demodulation Mode QPSK  
 Max input bitrate ≤125 Mbps

## DVB-S2

Input Frequency 950-2150Mhz  
 Symbol rate QPSK/8PSK /16APSK :0.5~45 Msps  
 32APSK: 0.5~34Msps;  
 FEC Demodulation QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10  
 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10  
 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10  
 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10  
 Demodulation Mode QPSK, 8PSK, 16APSK, 32APSK  
 Max input bitrate ≤125 Mbps

## DVB-S2X

Input Frequency 950-2150Mhz  
 Symbol rate QPSK/8PSK /16APSK :0.5~45 Msps  
 8APSK: 0.5~40Msps  
 32APSK: 0.5~34Msps;  
 FEC Demodulation QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10  
 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10  
 8APSK: 5/9-L, 26/45-L  
 16APSK:2/3, 3/4, 4/5, 5/6, 8/9, 9/10, 1/2-L, 8/15-L, 5/9-L,  
 26/45, 3/5, 3/5-L, 28/45, 23/36, 2/3-L, 25/36, 13/18, 7/9,  
 77/90  
 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10, 2/3-L, 32/45, 11/15, 7/9  
 Demodulation Mode QPSK, 8PSK, 8APSK, 16APSK, 32APSK  
 Max input bitrate ≤125 Mbps

## DVB-T/T2 Mode

Frequency Range 30MHz-1000Mhz  
 Bandwidth 6Mhz, 7Mhz, 8Mhz  
 Level -87 ~ -20dBm  
 Constellation QPSK, 16QAM, 64QAM,  
 256QAM(Only DVB-T2)  
 FEC Demodulation DVB-T: 1/2, 2/3, 3/4, 5/6, 7/8  
 DVB-T2:1/2, 3/5, 2/3, 3/4, 4/5, 5/6  
 Guard Interval DVB-T: 1/4, 1/8, 1/16, 1/32  
 DVB-T2:1/4, 5/32, 1/8, 5/64, 1/16, 1/32, 1/64, 1/128

## DVB-C Mode

Input Frequency Range 30 ~ 1000MHz  
 Input Level 51~75dBμV  
 Symbol Rate 1~7MBaud  
 QAM Encoding ITU-TJ.83 Annex A(DVB), Annex B, Annex C  
 Constellation 16QAM, 32QAM, 64QAM, 128QAM, 256QAM  
 Bandwidth 6MHz, 7MHz, 8MHz

## ISDB-T Mode

Input frequency range 30 ~ 900MHz  
 Bandwidth 6MHz  
 Constellation DQPSK, QPSK, 16QAM, 64QAM  
 Interleave 0, 4, 8, 16  
 Guard Interval 1/32, 1/16, 1/8, 1/4

Transmission Mode 2K, 4K, 8K (FFT)  
 FEC (Code Rate) 1/2, 2/3, 3/4, 5/6, 7/8  
 NOTE: Support to connect and receive any sources from DVB-C /T/T2/ISDB-T

## ATSC Mode

Frequency range 50 - 860 MHz  
 Key reference specification ATSC A/53  
 Input level -34 to +40 dBmV  
 Constellation 8-VSB  
 Bandwidth 6MHz

## Input optional

Optional 1 16 tuners input +2 ASI input---SPTS output  
 Optional 2 14 tuners input +2 ASI input --- MPTS output  
 Optional 3 16 tuners input --- MPTS output

## MPEG-TS Processing

IP mode MPTS, SPTS  
**Note:**When Switch success, Please reboot device by hand  
 Maximum PID Remapping 180 input per channel  
 PID remapping by automatically or manually)  
 PSI/SI(Valid in SPTS) Program Name, Program Number, Service Type,  
 Service Provider, PMT/PCR/Video/Audio PID  
 Note:In MPTS mode.Disable Configuration

## Stream output

Dual GbE interfaces, RJ45 Port, Auto-negotiation  
 GbE1, GbE2, ≅850Mbps Per Port  
 MPEG-TS Over UDP and RTP/RTSP  
 7x188 Bytes per TS packet  
 Multicast/Unicast

## MPTS mode

Filter Null Packet  
 Each IP out Configurable mirroring per Tuner  
 Numbers of MPTS:Up to 16  
 Selectable ts out via GbE1 or GbE2 Port

## SPTS Mode

TS out via GbE1 as Mirror of GbE2 Port  
 Configurable two IP address (or port) out from one  
 SPTS Simultaneously  
 Numbers of SPTS: Up to 512

## BISS descrambling

BISS-0, BISS-1 and BISS-E  
 descramble individual program

## System function

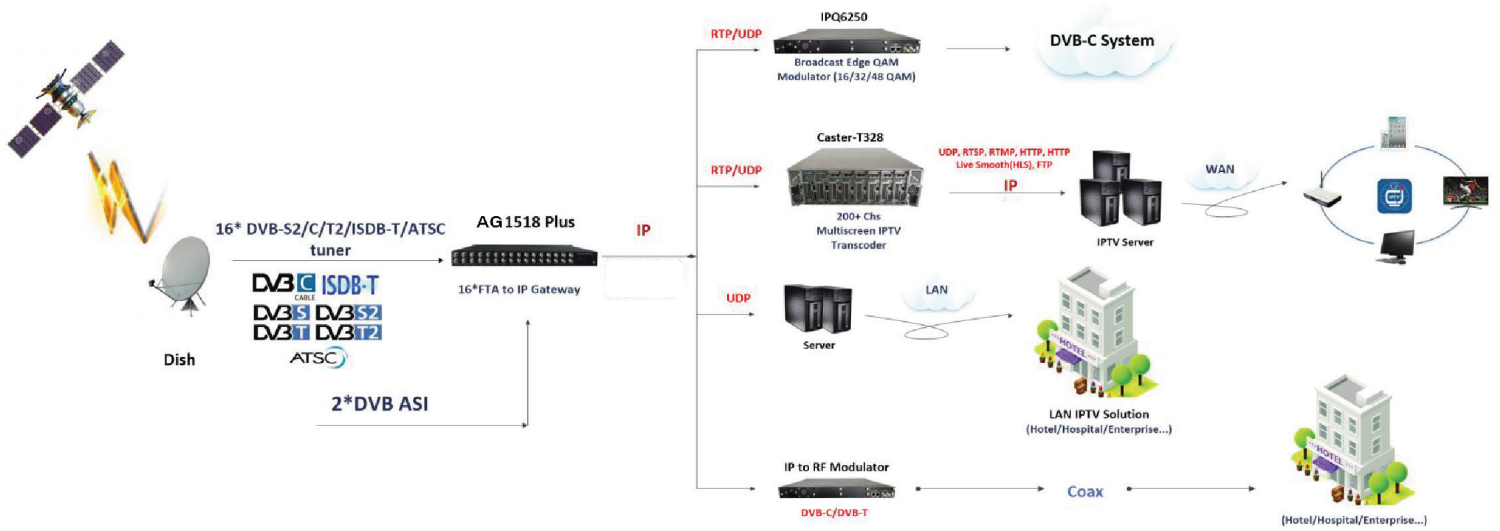
Web Network management  
 English language  
 Ethernet software upgrade  
 Save/Restore/Facure Set/Backup/Load Setting

## Environment

Dimensions(HxWxD) 482mm×410mm×44mm  
 Weight 3.6Kg  
 Temperature 0~45℃(operating); -20~80℃(Storage)  
 Power Voltage 100~240VAC, 50/60Hz  
 Power Consumption 20W

## Ordering Information

Model	Loop out	ASI in	ASI out	MPTS out	SPTS out
AG 1518-8	YES	2	—	8	512
AG 1518Plus-16	YES	2	—	16	



Model	Tuner Model				Tuner Number	Tuner LOOP	ASI IN	ASI OUT	USB	LCD
	DVB-S/S2/S2X	DVB-S/S2	DVB-C/T/T2/ISDB-T	ATSC						
AG 1518Plus	√	√	√	√	16	√	2	x	x	x
AG 1518S	√	x	x	x	16/24	x	1	2	1	x
AG 1518Pro	√	x	√	x	16/24	√	2	2	1	√