ATSC-M/H Multiplex Signal Generator

All in One

ATX2000 >

Multiplexing

Introduction

ATX2000, **ATSC-M/H Signal Generator**, is developed for ATSC-M/H standard which is a new mobile broadcasting standard in U.S.
It is the most advanced ATSC-M/H solution solely existing in the world at this moment. It provides variable broadcasting simulation test environment through fully detailed parameter setting according to the standard and multiplexing functions in use.
This All-in-One ATSC-M/H Signal Generator offers patented easy user interface, high-end RF quality and its stability.
Users are deserved to save cost and time for development to introduce your solution and product to the remarkable market in advance.
Feel the technology and fully experienced know-how of Digital TV & Mobile TV from ATX2000 and be a leader in new generation of ATSC.

Features

Main Characteristics

- ATSC-M/H Multiplex Signal Generator
- Modulation : ATSC-M/H (8VSB)
- Real time Multiplex function for Main Stream, Mobile A/V, Data, & ESG
- All Modes in ATSC-M/H standard supportable
- Information Editing function of TPC, FIC, SMT-MH.
- Captured ATSC-M/H TS Playing
- Multiplexed TS Capture & Save function.
- Multiplexer-centered Easy User Interface.
- Multiplex Status Monitoring.
- Analog IQ Output support for AWGN & Fading Test.

ATX2000 is designed for...

- ATSC-M/H Chipset H/W & S/W Development
- ATSC-M/H Broadcast Engineering Simulation
- ATSC-M/H Middleware Development
- ATSC-M/H Receiver R&D
- ATSC-M/H Product manufacturing & Signal Center
- ATSC-M/H Precise Sales Demonstration
  for Chipset & High performance Receiver

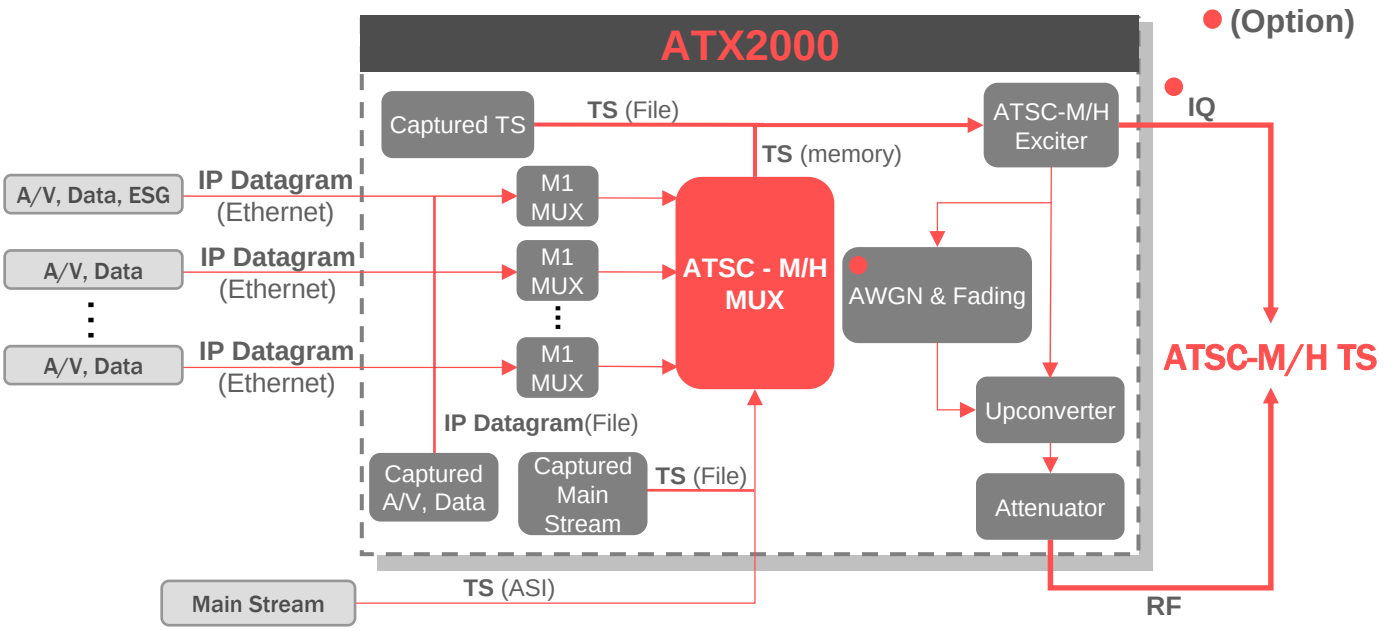
General Characteristics

- RF Upconverter : 50 ~870MHz Adjustable.
- Power Level : -110 ~ 0 dBm Adjustable.
- AWGN / Fading simulation (Option * In Preparation)
- Main Stream (TS File / ASI Live)
- Mobile A/V, Data, ESG (TS File / IP Datagram (Ethernet))

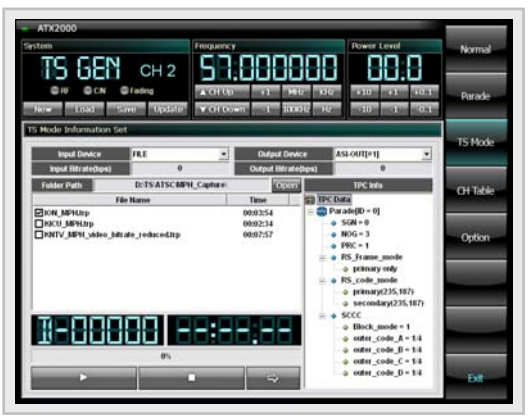
Version 1.0 released on Jul.

ATSC-M/H Multiplex Signal Generator

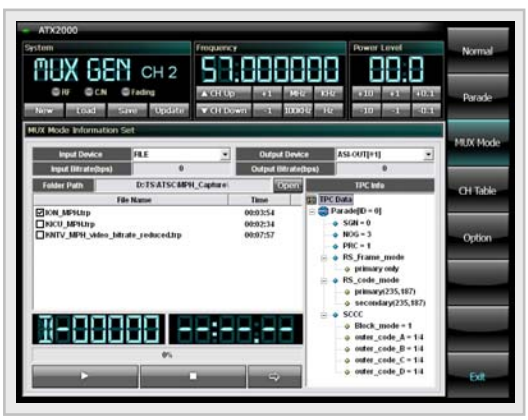
System Diagram



User Interface



TS Mode



Mux Mode

Parade View

Ensemble View

ATSC-M/H Multiplex Signal Generator

Specifications

RF Specifications
- Output Connector : N Type
- RF Output Frequency : 50~870 MHz (VHF/UHF)
- RF Frequency Resolution : 1Hz
- Frequency Accuracy : 3 x 10^{-6} / 25 ℃
- RF Power Level : -110 ~ 0dBm
- RF Level Resolution : 0.1dB steps
- RF Level Accuracy : ±0.5dB relative to the level at 18-33 ℃
- RF Impedance : 50 Ω

Modulator Specifications
- Broadcasting system
  - Digital Terrestrial TV : ATSC-M/H
- Transmission Parameter
  - Modulation : 8VSB
  - RS Coding : RS(207,187) (Systematic/Non-Systematic)

General Specifications
- Power supply : AC 100 to 250V, 50/60Hz
- Power consumption : Less than 300W
- Operating temperature : 10 to 40 ℃
- Operating humidity : 40 to 85% RH (No Condensation)
- Guaranteed temperature : 15 to 35 ℃
- Guaranteed humidity : 20 to 85% RH (No Condensation)
- Storage temperature : -40 to +70 ℃ / 20 ~ 85% RH
- Operating environment : Indoor
- Operating attitude : Around 2000m
- Over-voltage category : II
- Pollution degree : 2
- Dimensions : 330.5(W) x 209(H) x 377.5(D) mm
- Weight : Approx.13Kg (Without option)

OS system
•Embedded OS

User interface system
- 8.4 inch TFT color LCD (800 x 600)
- Touch Screen

External Interface system
- USB Interface : USB HDD, USB Stick
- Remote Control : RS-232C

Function Options

- AWGN Module(FM-203) * In Preparation
  - C/N range : 0 ~ +45dB
  - C/N resolution : 0.1 dB Steps
  - Noise Band Width : 10MHz

- Fading Module(FM-204) * In preparation
  - Number of Path : 6 paths
  - Constant Phase/Pure Doppler : 6 Paths
  - Rayleigh, Rice : 1 Path
  - Delay Time/Resolution : 0 ~ 28.4 μsec, 10ns step
  - Carrier Phase/Resolution : 0 ~ 360° , 0.1° step
  - Path Loss Range : 0.0 ~ 50.0dB , 0.1dB step
  - Doppler Frequency/Resolution : 0.1 ~ 1000.0 Hz , 0.1Hz step

- Analog I/Q Out Module (FM-205)
  - Internal Base-band I/Q
  - Output Connector Type : BNC
  - Output Impedance : 50Ohm
  - Output Voltage : 0.5 V (V_p)

Ordering Information

Base Model		Description	Notes
ATX2000		ATSC-M/H Multiplex Signal Generator	
Options		**Description**	**Notes**
Function Option	FM-203	AWGN Module * In Preparation (Coming soon!!)	
	FM-204	Fading Module * In preparation (Coming soon!!)	
	FM-205	Analog I/Q Out Module	
ETC Option	EF-301-250	HDD 250G	* Add HDD : Max 2 Options. * When a client selects additional option after purchasing product, all units should be returned to the supplier.
	EF-301-320	HDD 320G	
	EF-303	Option Upgrade	

* All Specifications and Features are subject to be changed without notice

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