

A-153

All in One

ATX1000 >



Head-end Level Multiplexing

Introduction

ATX1000, ATSC-M/H Multiplex Signal Generator, is developed for ATSC-M/H standard (A-153) which is a new mobile TV broadcasting standard in U.S. Head-end level multiplexing performance and accuracy are basically required to conduct the test in R&D of ATSC-M/H all kind of chipsets, dongles, front & full modules, middleware, and high-valued receiver devices according to the core technology of ATSC-M/H standard (A-153).

Features

Main Characteristics

- ATSC-M/H Multiplex Signal Generator
- Modulation : ATSC-M/H (8VSB)
- Multiplex function for Main Stream, Mobile A/V, Data, & ESG
- Multiplex capability of OMA-BCAST & OMA-RME Data.
- All Modes in ATSC-M/H standard supportable
- Information Editing function of TPC, FIC, Signaling Sections (SMT, GAT, SLT, CIT)
- Multiplexed TS save function
- Captured ATSC-M/H TS Playing
- Multiplexer-centered Easy User Interface.
- Multiplex Status Monitoring.
- Analog IQ & IF (36 MHz) Output support for AWGN & Fading Test.

ATX1000 is designed for...

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

General Characteristics

- RF Upconverter : 50 ~870MHz Adjustable.
- Power Level : -110 ~ 0 dBm Adjustable.
- Analog I/Q & IF Output.



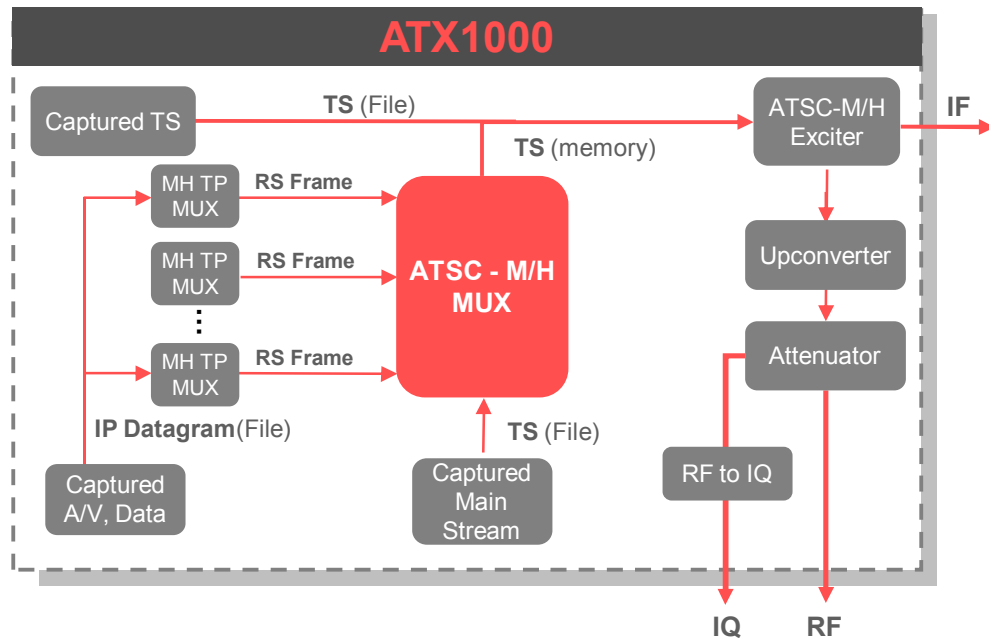
Essential Test Factors for R&D

Why is ATSC-M/H Multiplexer in need?

- Sensitivity Test
 - SCCC Mode 1/2 or 1/4 / Primary & Secondary.
- Number of Group Test. (NoG Test)
 - Available NoG : 1 ~ 16
 - Depends on the number of parade
- Time Slicing Test (Power Saving)
 - Current usage test by combination of NoG in each Parade.
- PRC Test
 - Burst mode by the value of PRC.
- Channel Scan Test.
 - Different Channel Mode (by FIC, SLT, SMT)
- Multi-Parade Test.
 - Multi-Parade test with different parameter in each Parade.

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

System Diagram



Specifications

RF Specifications

- Output Connector : N Type
- RF Output Frequency : 50~870 MHz (VHF/UHF)
- RF Frequency Resolution : 1Hz
- Frequency Accuracy : $3 \times 10^{-6} / 25 \text{ }^\circ\text{C}$
- RF Power Level : -110 ~ 0dBm
- RF Level Resolution : 0.1dB steps
- RF Level Accuracy : $\pm 0.5\text{dB}$ relative to the level at 18-33 $^\circ\text{C}$
- 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
- Storage Capacity : 250GB or over
- Operating temperature : 10 to 40 $^\circ\text{C}$
- Operating humidity : 40 to 85% RH (No Condensation)
- Guaranteed temperature : 15 to 35 $^\circ\text{C}$
- Guaranteed humidity : 20 to 85% RH (No Condensation)
- Storage temperature : -40 to +70 $^\circ\text{C}$ / 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)

Interface Specifications

- Analog IF
 - 36Mhz
- Analog I/Q Out
 - Internal Base-band I/Q
 - Output Connector Type : BNC
 - Output Impedance : 50Ohm
 - Output Voltage : Max 300mV (Vp)
- LAN
 - Ethernet 10/100/1G Local Area Network
- Remote Control
 - RS232C

OS system

- Embedded OS

User interface system

- 8.4 inch TFT color LCD (800 x 600)
- Touch Screen
- Control Panel – Button, Jog Shuttle

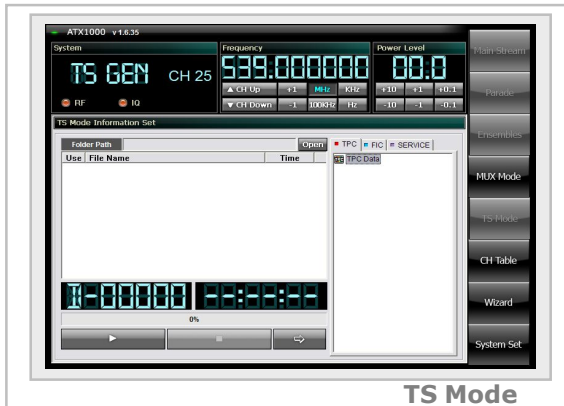
External Interface system

- USB Interface : USB HDD, USB Stick

ATSC M/H Multiplex Signal Generator



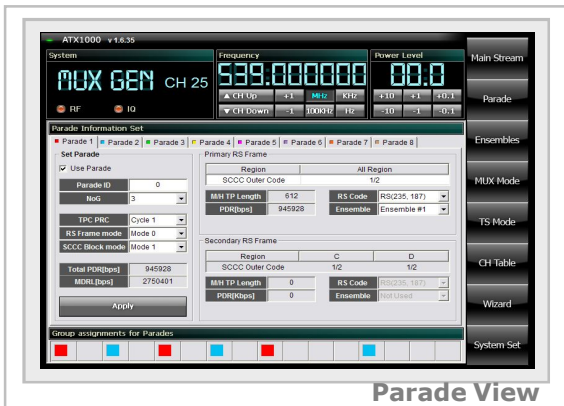
User Interface



TS Mode



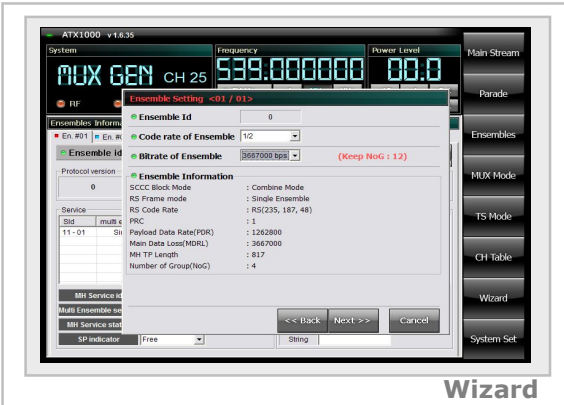
Mux Mode



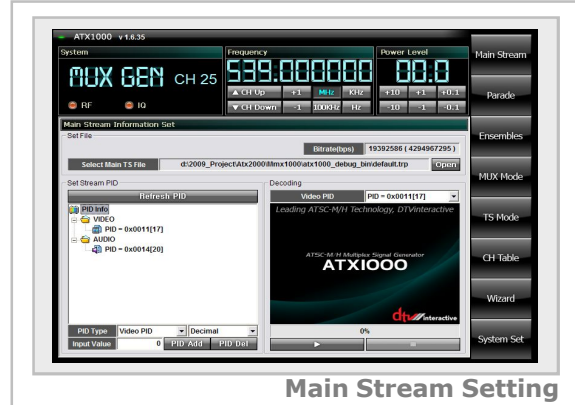
Parade View



Ensemble View



Wizard



Main Stream Setting

Ordering Information

Base Model		Description	Notes
ATX1000		ATSC-Mobile DTV TS Generator	
Option		Description	Notes
Function Option	FM-301	Multiplex Engine (MUX mode support)	

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