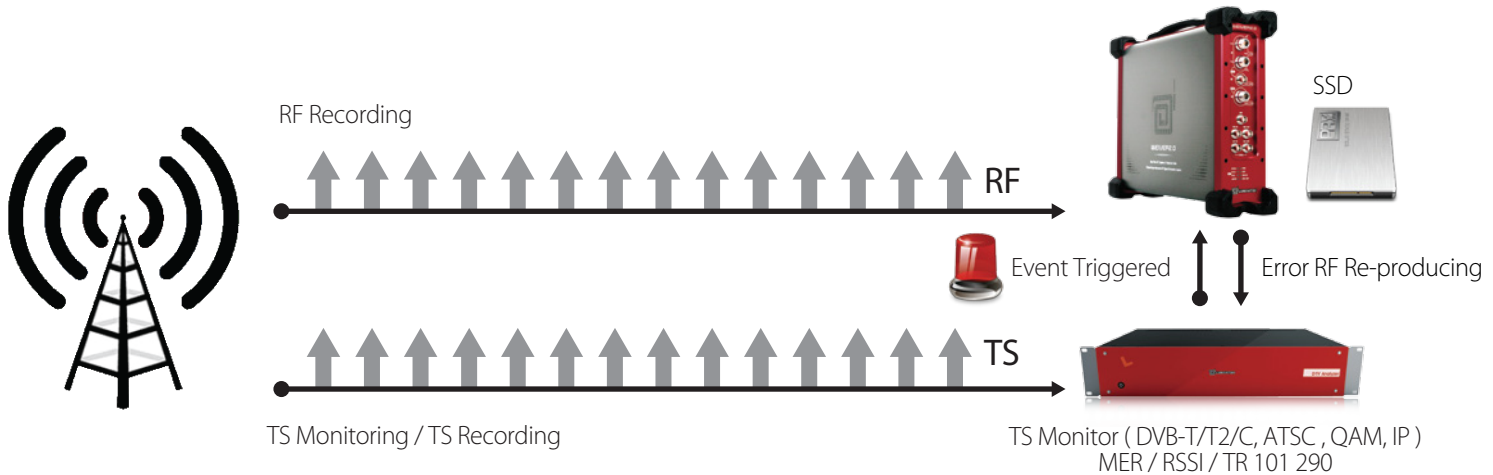


Simultaneous MPEG2-TS & RF Quality Monitoring

RF Signal Error Alarm Triggering by Min./Max. MER Index



DVB T2 **DVB T** **DVB C** a t s c
Advanced Television Systems Committee





RF Signal Alarm Triggering

By Min./Max. MER Index, RSSI Index and TS error Operation parameters



DVB-T2 / DVB-T / DVB-C / ATSC

Real-time DTV TS monitoring / RF Quality Recording



Full RF Sequence Simulation

Including sequence Before & After RF Alarm Triggered

RF Recorder - FREQUENCY

Frequency band	
HF (High Frequency)	48MHz to 2.7GHz
HF (High Frequency) Low Noise	
LF (Low Frequency)	0.1MHz to 56MHz
Real-time bandwidth	
56 MHz max. (Arbitrary Variable BW, 1Hz step)	
Frequency resolution	1Hz step
RBW (Resolution bandwidth)	3 KHz, 5 KHz, 10 KHz, 20 KHz
Warm-up time	30 minutes (typ.)
Freq. Stability vs. Temp.	±20 ppb max.
Aging (PER Day)	±1 ppb max.
Aging (PER year)	±50 ppb max.

Spectral Purity

Phase Noise@1 KHz offset	
HF	≤ -95 dBc/Hz (1 GHz)
	≤ -90 dBc/Hz (2.7 GHz)
LF	≤ -90 dBc/Hz (2.7 GHz)
Phase Noise@10 KHz offset	
HF	≤ -100 dBc/Hz (1 GHz)
	≤ -95 dBc/Hz (2.7 GHz)
LF	≤ -105 dBc/Hz (30 MHz)

Noise Figure

Noise Figure(1GHz)	
HF	< 7 dB (Gain : 45 dB)
HF_Low Noise	< 3 dB (Gain 45 dB)
LF	< 7 dB (Gain 35 dB)

Amplitude

Input Dynamic Range(CW tone)	
HF	+10 ~ -135 dBm
HF_Low Noise	-30 ~ -139 dBm
LF	+10 ~ -120 dBm
Input Level	
Input level Resolution	0.1dB
Input Level Accuracy	±1 dB max.
Gain Range	
HF	-15 ~ +50 dB (1 dB step)
HF_Low Noise	+25 ~ +50 dB (1 dB step)
LF	-20 ~ +35 dB (1 dB step)

IF band

ADC Resolution	16-Bit
Sampling rate	140 MS/s
IF Frequency	150 MHz

RF input port

RF input port	
HF	50ohm, N type female, DC-Coupled
HF_Low Noise	50ohm, N type female, DC-Coupled
LF	50ohm, BNC type female, DC-Coupled
Max. DC input	±25 VDC max.

H/W Specification-DTV Analyzer

Demodulation	8VSB, QAM-B(64QAM, 256QAM) DVB-T2, DVB-T, DVB-C2, DVB-C
Size	154mm x 76.8mm x 28.4mm
POWER	USB 2.0 bus powered, no power supply required.
RF input connector	75 Ω F-Type 1ea
ASI/SMPTE310M input connector	75 Ω BNC 1ea
ASI/SMPTE310M output connector	75 Ω BNC 1ea
ASI input bit-rate	0~108Mbps
ASI output bit-rate	0~108Mbps
Error trigger Input port	75Ω BNC 1ea
Error trigger Output port	75Ω BNC 1ea
RF Input Frequency Range	40 ~ 1002 MHz
RF Input Level	+6 ~ -75 dBm

S/W Specification-DTV Analyzer

TS Input	ASI, SMPTE310M, File, IP(UDP/TS or UDP/RTP/TS), RF(US Type) ASI, File, IP(UDP/TS or UDP/RTP/TS), RF(EU Type)
TS Output	ASI or SMPTE310M (Allow when input is ASI, SMPTE310M) TS Playback (US) ASI (Not supported in IP Input, high speed analysis mode)(EU)
Analysis Mode	MPEG-2, ATSC, DVB
Analysis Result Windows	Service,PID,Table,Service View, Bit-rate,TR 101 290,Table History
Embedded Systems	CPU : Intel Core i5 2.5GHz RAM : 4GB OS : Embedded Window 7 64bits