




Product Line Card 2016

	Systems				Modules	
						
	1	2	3	4	5	6
Interfaces	4T2-Portable (4+1 slots available) IP input: yes ASI input: yes ASI output: optional RF terrestrial: (46.5..870) MHz RF satellite: (950 .. 2150) MHz	4T2-Rack (4+1 slots available) yes yes optional (46.5..870) MHz (950 .. 2150) MHz	4T2 broadcast multi probe 3000 (2 slots available) yes yes optional (46.5..870) MHz (950 .. 2150) MHz	4T2 broadcast multi probe 1000 (2 slots available) yes yes optional (46.5..870) MHz ..	XTASI-RF yes (46.5..870) MHz ..	XTASI-ASI in yes XTASI-ASI in ..
Demodulation	Standards DVB-T/T2, DVB-S/S2 -85 dBm – +3dBm /50 Ohm MER: 42 dB (± 1) EVM: 0.6 % (± 0.3) SNR: 42 dB (± 0.5) CSI: 1 % (± 0.2) CS, PJ, AL, OE, STEM, STD Frequency offset: 3 Hz (± 0.5) over+ext Ref. Bitrate offset: 0.1 bits/s (± 0.2) Mode, GI, CR, TPS, Cell ID: displayed	Standards DVB-T/T2, DVB-S/S2 -85 dBm – +3dBm /50 Ohm MER: 42 dB (± 1) EVM: 0.6 % (± 0.3) SNR: 42 dB (± 0.5) CSI: 1 % (± 0.2) Frequency offset: 3 Hz (± 0.5) over+ext Ref. Bitrate offset: 0.1 bits/s (± 0.2) displayed	Standards DVB-T/T2 -85 dBm – +3dBm /50 Ohm MER: 42 dB (± 1) EVM: 0.6 % (± 0.3) SNR: 42 dB (± 0.5) CSI: 1 % (± 0.2) Frequency offset: 3 Hz (± 0.5) over+ext Ref. Bitrate offset: 0.1 bits/s (± 0.2) displayed	Standards DVB-T/T2 -85 dBm – +3dBm /50 Ohm MER: 42 dB (± 1) EVM: 0.6 % (± 0.3) SNR: 42 dB (± 0.5) CSI: 1 % (± 0.2) Frequency offset: 3 Hz (± 0.5) over+ext Ref. Bitrate offset: 0.1 bits/s (± 0.2) displayed	Standards DVB-T/T2 -85 dBm – +3dBm /50 Ohm MER: 42 dB (± 1) EVM: 0.6 % (± 0.3) SNR: 42 dB (± 0.5) CSI: 1 % (± 0.2) Frequency offset: 3 Hz (± 0.5) over+ext Ref. Bitrate offset: 0.1 bits/s (± 0.2) displayed	Standards DVB-T/T2 -85 dBm – +3dBm /50 Ohm MER: 42 dB (± 1) EVM: 0.6 % (± 0.3) SNR: 42 dB (± 0.5) CSI: 1 % (± 0.2) Frequency offset: 3 Hz (± 0.5) over+ext Ref. Bitrate offset: 0.1 bits/s (± 0.2) displayed
Error Rates	Results BER pre Viterbi, pre/post Reed Solomon (DVB-T) BER pre LDPC, pre/post BCH (DVB-T2) multi-graph with automatic averaging logfile as csv ASCII	Results BER pre Viterbi, pre/post Reed Solomon (DVB-T) BER pre LDPC, pre/post BCH (DVB-T2) multi-graph with automatic averaging logfile as csv ASCII	Results BER pre Viterbi, pre/post Reed Solomon (DVB-T) BER pre LDPC, pre/post BCH (DVB-T2) multi-graph with automatic averaging logfile as csv ASCII	Results BER pre Viterbi, pre/post Reed Solomon (DVB-T) BER pre LDPC, pre/post BCH (DVB-T2) multi-graph with automatic averaging logfile as csv ASCII	Results BER pre Viterbi, pre/post Reed Solomon (DVB-T) BER pre LDPC, pre/post BCH (DVB-T2) multi-graph with automatic averaging logfile as csv ASCII	Results BER pre Viterbi, pre/post Reed Solomon (DVB-T) BER pre LDPC, pre/post BCH (DVB-T2) multi-graph with automatic averaging logfile as csv ASCII
Spectrum	Displays / Functions Zoom: variable Markers: 5 independent, 2 shoulders, 1 mouse to clipboard or file supported Export Functions: supported Spectrum Masks: supported Resolution Bandwidths: 3 / 10 / 30 / 100 kHz Video Bandwidths: 300 Hz / 1 / 3 / 10 / 30 / 100 kHz Memory: screen memory Dynamics: 55 dB, ± 1 dB Frequency: 177 Hz, ± 2 E-8 Level: 0.1 dB, ± 0.7 dB	Displays / Functions Zoom: variable Markers: 5 independent, 2 shoulders, 1 mouse to clipboard or file supported Export Functions: supported Spectrum Masks: supported Resolution Bandwidths: 3 / 10 / 30 / 100 kHz Video Bandwidths: 300 Hz / 1 / 3 / 10 / 30 / 100 kHz Memory: screen memory Dynamics: 55 dB, ± 1 dB Frequency: 177 Hz, ± 2 E-8 Level: 0.1 dB, ± 0.7 dB	Displays / Functions Zoom: variable Markers: 5 independent, 2 shoulders, 1 mouse to clipboard or file supported Export Functions: supported Spectrum Masks: supported Resolution Bandwidths: 3 / 10 / 30 / 100 kHz Video Bandwidths: 300 Hz / 1 / 3 / 10 / 30 / 100 kHz Memory: screen memory Dynamics: 55 dB, ± 1 dB Frequency: 177 Hz, ± 2 E-8 Level: 0.1 dB, ± 0.7 dB	Displays / Functions Zoom: variable Markers: 5 independent, 2 shoulders, 1 mouse to clipboard or file supported Export Functions: supported Spectrum Masks: supported Resolution Bandwidths: 3 / 10 / 30 / 100 kHz Video Bandwidths: 300 Hz / 1 / 3 / 10 / 30 / 100 kHz Memory: screen memory Dynamics: 55 dB, ± 1 dB Frequency: 177 Hz, ± 2 E-8 Level: 0.1 dB, ± 0.7 dB	Displays / Functions Zoom: variable Markers: 5 independent, 2 shoulders, 1 mouse to clipboard or file supported Export Functions: supported Spectrum Masks: supported Resolution Bandwidths: 3 / 10 / 30 / 100 kHz Video Bandwidths: 300 Hz / 1 / 3 / 10 / 30 / 100 kHz Memory: screen memory Dynamics: 55 dB, ± 1 dB Frequency: 177 Hz, ± 2 E-8 Level: 0.1 dB, ± 0.7 dB	Displays / Functions Zoom: variable Markers: 5 independent, 2 shoulders, 1 mouse to clipboard or file supported Export Functions: supported Spectrum Masks: supported Resolution Bandwidths: 3 / 10 / 30 / 100 kHz Video Bandwidths: 300 Hz / 1 / 3 / 10 / 30 / 100 kHz Memory: screen memory Dynamics: 55 dB, ± 1 dB Frequency: 177 Hz, ± 2 E-8 Level: 0.1 dB, ± 0.7 dB
Impulse Response	Displays CIR(pilots), ACF (raw samples) SFN-real power measurement Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 1.5 dB, 0.5 µs)	Displays CIR(pilots), ACF (raw samples) SFN-real power measurement Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 1.5 dB, 0.5 µs)	Displays CIR(pilots), ACF (raw samples) SFN-real power measurement Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 1.5 dB, 0.5 µs)	Displays CIR(pilots), ACF (raw samples) SFN-real power measurement Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 1.5 dB, 0.5 µs)	Displays CIR(pilots), ACF (raw samples) SFN-real power measurement Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 1.5 dB, 0.5 µs)	Displays CIR(pilots), ACF (raw samples) SFN-real power measurement Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 1.5 dB, 0.5 µs)
CCDF	Displays Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 0.5 dB) Crest factor (± 0.5 dB)	Displays Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 0.5 dB) Crest factor (± 0.5 dB)	Displays Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 0.5 dB) Crest factor (± 0.5 dB)	Displays Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 0.5 dB) Crest factor (± 0.5 dB)	Displays Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 0.5 dB) Crest factor (± 0.5 dB)	Displays Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 0.5 dB) Crest factor (± 0.5 dB)
Group Delay	Displays Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 0.5 ns)	Displays Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 0.5 ns)	Displays Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 0.5 ns)	Displays Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 0.5 ns)	Displays Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 0.5 ns)	Displays Zoom: variable Memory: screen memory Markers: 5 independent, 1 mouse Results / accuracy: marker readouts (± 0.5 ns)
Coverage Analysis	Displays Channels RF values and position data from GPS receiver 4 RF channels supported graphical display in user defined maps ASCII file format for automated conversion km/kmz export into Google map applications	Displays Channels RF values and position data from GPS receiver 4 RF channels supported graphical display in user defined maps ASCII file format for automated conversion km/kmz export into Google map applications	Displays Channels RF values and position data from GPS receiver 1 RF channel supported graphical display in user defined maps ASCII file format for automated conversion km/kmz export into Google map applications	Displays Channels RF values and position data from GPS receiver 1 RF channel supported graphical display in user defined maps ASCII file format for automated conversion km/kmz export into Google map applications	Displays Channels RF values and position data from GPS receiver 4 RF channels supported graphical display in user defined maps ASCII file format for automated conversion km/kmz export into Google map applications	Displays Channels RF values and position data from GPS receiver 4 RF channels supported graphical display in user defined maps ASCII file format for automated conversion km/kmz export into Google map applications
MPEG Transport Stream	Analysis of MPEG-TS PAT, PMT, Program Association, and Map Tables Analysis of DVB- or ATSC-specific Service Information (CAT, SDT, EIT, NIT, TOT, TDT, (MGT, STT, TVCT, EIT, EIT)) Analysis of DVB T2-MI Modulator Interface (DVB-T2) Analysis of DVB-T MIP Megafame Initialisation Packets (DVB-T) Visualisation of PID Packet Identifiers, associated bit-rates, and bit-stuffing Raw data analysis with smart packet-trigger, and bit dependencies checking Smart Packet trigger with expression editor Visualisation of time repetition intervals of tables as defined in TR.101.290 TR.101.290 analysis and visualisation of first, second, and third priority errors Measurement of PCR Program Clock Reference jitter Multi-Viewer content decoding, including MPEG-4, H.264 and H.265 SD/HD/UHD material Loudness measurement on audio services Detection of black/freeze conditions on services in the transport stream Detection of audio mute condition on services in the transport stream Comprehensive logging features with powerful sorting capabilities Registration of Transport Stream to HDD in presence of errors (with history) Simultaneous measurements on different Transport Stream sources (multiple instances of the program run at the same time) Remote capability with full SNMP support following the DVB MIB, including Traps					
Special Features	.. power sensor support vehicle power adaptor GPS Receiver Common Interface	display and relay interface (option) power sensor support vehicle power adaptor GPS Receiver Common Interface	spectrum analyser / tracking generator power sensor support vehicle power adaptor GPS Receiver Common Interface	display and relay interface (option) power sensor support vehicle power adaptor GPS Receiver GPS Receiver
PC configuration	Motherboard Intel H chipset CPU Intel Skylake 4-core T1-6700 RAM 16GB DDR4 2100 Disk SATA III SSD >240 GB Display 15.4" 1440*900 or 1920*1200 WUXGA Audio 2 speakers Interconnection hdmi, 4x USB-3 Input devices Keyboard / touchpad Network Dual Ethernet (TCP/IP) 2x 1 Gbit/s Operating System Windows 10 professional 64bit	Motherboard Intel H chipset CPU Intel Skylake 4-core T1-6700 RAM 16GB DDR4 2100 Disk SATA III SSD >240 GB Display .. Audio .. Interconnection hdmi, 4x USB-3 Input devices Keyboard / touchpad Network Dual Ethernet (TCP/IP) 2x 1 Gbit/s Operating System Windows 10 professional 64bit	Motherboard Microsoft Surface Pro 4 Intel Skylake 5 4GB DDR4 PCIe SSD 12.3" 2736*1824 2 speakers / headphone jack Micro-DVI Keyboard / touchpad Ethernet (TCP/IP) 1 Gbit/s Windows 10 professional 64bit	Motherboard bmp1000 minimum requirements: Passmark CPU index: PM >1000 analysis/single pgm decoding PM >7000 analysis /10 pgm MV	Motherboard XTASI modules minimum requirements: Passmark CPU index: PM >1000 analysis/single pgm decoding PM >7000 analysis /10 pgm MV	Motherboard XTASI modules minimum requirements: Passmark CPU index: PM >1000 analysis/single pgm decoding PM >7000 analysis /10 pgm MV
Mechanical	Dimensions (w x h x d) Weight: 8 kg Power Supply: 47..63 Hz, 90..260 V, 250 W 80+ Operating Temperature: 0 °C..+ 40 °C Storage Temperature: -20 °C..+ 50 °C Relative Humidity: 5% .. 85% (non-condensing) Shock: 3 g max	Dimensions (w x h x d) Weight: 4.5 kg Power Supply: 47..63 Hz, 90..260 V, 250 W 80+ Operating Temperature: 0 °C..+ 40 °C Storage Temperature: -20 °C..+ 50 °C Relative Humidity: 5% .. 85% (non-condensing) Shock: 3 g max	Dimensions (w x h x d) Weight: 4.5 kg Power Supply: 47..63 Hz, 90..260 V, 50 W Operating Temperature: 0 °C..+ 40 °C Storage Temperature: -20 °C..+ 50 °C Relative Humidity: 5% .. 85% (non-condensing) Shock: 3 g max	Dimensions (w x h x d) Weight: <1 kg Power Supply: 47..63 Hz, 90..260 V, 350 W Operating Temperature: 0 °C..+ 40 °C Storage Temperature: -20 °C..+ 50 °C Relative Humidity: 5% .. 85% (non-condensing) Shock: 3 g max	Dimensions (w x h x d) Weight: 110 g Power Supply: through USB Operating Temperature: 0 °C..+ 40 °C Storage Temperature: -20 °C..+ 50 °C Relative Humidity: 5% .. 85% (non-condensing)	Dimensions (w x h x d) Weight: 110 g Power Supply: through USB Operating Temperature: 0 °C..+ 40 °C Storage Temperature: -20 °C..+ 50 °C Relative Humidity: 5% .. 85% (non-condensing)
Application Scenarios	recommended features	available in ABC product	Application Scenarios (contd)	recommended features	available in ABC product	
Headend	TS over IP input ASI input T2-MI H.265, H.264 Monitor Wall	1, 2, 3, 4, 5, 6	Coverage	Off-air RF-input Field Strength Conversion Calibrated Antenna Map Display kml export multiple channels	1, 2, 3, 4, 5	
Transmitter setup and maintenance	DVB-T/T2 terrestrial RF-input MER, MER vs Carriers Shoulder distance Frequency Offset	1, 2, 3, 4	Monitoring	SNMP remote control DVB-MIB Monitor Wall	1, 2, 3, 4, 5, 6	
			DSNG	DVB-S/S2 satellite RF-input Content Decoding	1, 2, 3	

applications

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applications

available in ABC product

1, 2, 3, 4, 5