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Product Line Card 2019

Systems

Modules

		1	2	3	4	5	6	
		4T2-Portable	4T2-Rack	4T2 broadcast multi probe 3000	4T2 broadcast multi probe 1000	XTASI-RF	XTASI-ASI in	
Interfaces		(4+1 slots available)	(4+1 slots available)	(2 slots available)				
	IP UDP/rtp input	yes	yes	yes	yes	yes	yes	RF- Analyser Application Software
	ASI input	yes	yes	yes	yes		XTASI-ASI in	
	ASI output	optional	optional	optional	. / .			
	RF terrestrial	yes	yes	yes	yes	(46.5..870) MHz		
	RF satellite	optional	optional	optional	optional			
Demodulation	Standard	**DVB-T/-T2**	**DVB-T/-T2**	**DVB-T/-T2**	**DVB-T/-T2**	**DVB-T/-T2**	. / .	
	Frequency Range	**(46.5..870) MHz**	**(46.5..870) MHz**	**(46.5..870) MHz**	**(46.5..870) MHz**	**(46.5..870) MHz**		
	Level	**-85 dBm .. +3dBm /50 Ohm**	**-85 dBm .. +3dBm /50 Ohm**	**-85 dBm .. +3dBm /50 Ohm**	**-85 dBm .. +3dBm /50 Ohm**	**-85 dBm .. +3dBm /50 Ohm**	800 mVpp /75 Ohm	
	MER	**42 dB (± 1)**	**42 dB (± 1)**	**42 dB (± 1)**	**42 dB (± 1)**	**42 dB (± 1)**	. / .	
	EVM	0.6 %(± 0.3)	0.6 %(± 0.3)	0.6 %(± 0.3)	0.6 %(± 0.3)	0.6 %(± 0.3)	. / .	
	SNR	42 dB (± 0.5)	42 dB (± 0.5)	42 dB (± 0.5)	42 dB (± 0.5)	. / .	. / .	
	CSI	1 %(± 0.2)	1 %(± 0.2)	1 %(± 0.2)	1 %(± 0.2)	. / .	. / .	
	CS, PJ, AI, QE, STEM, STED	measured	measured	measured	measured	. / .	. / .	
	Frequency offset	3 Hz (± 0.5) oven+ext Ref.	3 Hz (± 0.5) oven+ext Ref.	3 Hz (± 0.5) oven+ext Ref.	3 Hz (± 0.5) oven+ext Ref.	. / .	. / .	
	Bitrate offset	0.1 bit/s (± 0.2)	0.1 bit/s (± 0.2)	0.1 bit/s (± 0.2)	0.1 bit/s (± 0.2)	. / .	. / .	
	Mode, GI, CR, TPS, Cell ID	displayed	displayed	displayed	displayed	displayed	. / .	
Error Rates	Results	BER pre Viterbi, pre/post Reed Solomon (DVB-T) BER pre LDPC, pre/post BCH (DVB-T2)	BER pre Viterbi, pre/post Reed Solomon (DVB-T) BER pre LDPC, pre/post BCH (DVB-T2)	BER pre Viterbi, pre/post Reed Solomon (DVB-T) BER pre LDPC, pre/post BCH (DVB-T2)	BER pre Viterbi, pre/post Reed Solomon (DVB-T) BER pre LDPC, pre/post BCH (DVB-T2)	BER pre Viterbi, pre/post Reed Solomon (DVB-T) BER pre LDPC, pre/post BCH (DVB-T2)	. / .	RF- Analyser Application Software
	Display	multi-graph with automatic averaging	multi-graph with automatic averaging	multi-graph with automatic averaging	multi-graph with automatic averaging	multi-graph with automatic averaging	. / .	
	Memory	logfile as csv ASCII	logfile as csv ASCII	logfile as csv ASCII	logfile as csv ASCII	logfile as csv ASCII	. / .	
Spectrum	Displays / Functions	In-band channel spectrum	In-band channel spectrum	In-band channel spectrum	In-band channel spectrum	. / .	. / .	RF- Analyser Application Software
	Zoom	variable	variable	variable	variable	. / .	. / .	
	Markers	5 independent, 2 shoulders, 1 mouse	5 independent, 2 shoulders, 1 mouse	5 independent, 2 shoulders, 1 mouse	5 independent, 2 shoulders, 1 mouse	. / .	. / .	
	Export functions	to clipboard or file	clipboard	to clipboard or file	clipboard	clipboard	. / .	
	Spectrum Masks	supported	supported	supported	supported	. / .	. / .	
	Resolution Bandwidths	3 / 10 / 30 / 100 kHz	3 / 10 / 30 / 100 kHz	3 / 10 / 30 / 100 kHz	3 / 10 / 30 / 100 kHz	. / .	. / .	
	Video Bandwidths	300 Hz / 1 / 3 / 10 / 30 / 100 kHz	300 Hz / 1 / 3 / 10 / 30 / 100 kHz	300 Hz / 1 / 3 / 10 / 30 / 100 kHz	300 Hz / 1 / 3 / 10 / 30 / 100 kHz	. / .	. / .	
	Memory	screen memory	screen memory	screen memory	screen memory	start/stop function	. / .	
	Dynamics	55 dB, ± 1 dB	55 dB, ± 1 dB	55 dB, ± 1 dB	55 dB, ± 1 dB	55 dB, ± 1 dB	. / .	
	Frequency	177 Hz, ± 2 E-8	177 Hz, ± 2 E-8	177 Hz, ± 2 E-8	177 Hz, ± 2 E-8	. / .	. / .	
	Level	0.1 dB, ± 0.7 dB	0.1 dB, ± 0.7 dB	0.1 dB, ± 0.7 dB	0.1 dB, ± 0.7 dB	. / .	. / .	
Impulse Response	Displays	CIR(pilots), ACF (raw samples) SFN-real power measurement	CIR(pilots), ACF (raw samples) SFN-real power measurement	CIR(pilots), ACF (raw samples) SFN-real power measurement	CIR(pilots), ACF (raw samples) SFN-real power measurement	. / . . / .	. / . . / .	RF- Analyser Application Software
	Zoom	variable	variable	variable	variable	. / .	. / .	
	Memory	screen memory	screen memory	screen memory	screen memory	. / .	. / .	
	Markers	5 independent, 1 mouse	5 independent, 1 mouse	5 independent, 1 mouse	5 independent, 1 mouse	. / .	. / .	
	Results / accuracy	marker readouts (± 1.5 dB, 0.5 µs)	marker readouts (± 1.5 dB, 0.5 µs)	marker readouts (± 1.5 dB, 0.5 µs)	marker readouts (± 1.5 dB, 0.5 µs)	. / .	. / .	
CCDF	Displays	CCDF, PAR	CCDF, PAR	CCDF, PAR	CCDF, PAR	. / .	. / .	RF- Analyser Application Software
	Zoom	variable	variable	variable	variable	. / .	. / .	
	Memory	screen memory	screen memory	screen memory	screen memory			
	Markers	5 independent, 1 mouse	5 independent, 1 mouse	5 independent, 1 mouse	5 independent, 1 mouse	. / .	. / .	
	Results / accuracy	marker readouts (± 0.5 dB) Crest factor (± 0.5 dB)	marker readouts (± 0.5 dB) Crest factor (± 0.5 dB)	marker readouts (± 0.5 dB) Crest factor (± 0.5 dB)	marker readouts (± 0.5 dB) Crest factor (± 0.5 dB)	. / . . / .	. / . . / .	
Group Delay	Displays	Phase, Group Delay, Amplitude response	Phase, Group Delay, Amplitude response	Phase, Group Delay, Amplitude response	Phase, Group Delay, Amplitude response	. / .	. / .	RF- Analyser Application Software
	Zoom	variable	variable	variable	variable	. / .	. / .	
	Memory	screen memory	screen memory	screen memory	screen memory	. / .	. / .	
	Markers	5 independent, 1 mouse	5 independent, 1 mouse	5 independent, 1 mouse	5 independent, 1 mouse	. / .	. / .	
	Results / accuracy	marker readouts (± 0.5 ns)	marker readouts (± 0.5 ns)	marker readouts (± 0.5 ns)	marker readouts (± 0.5 ns)	. / .	. / .	
Coverage Analysis	Displays	RF values and position data from GPS receiver	RF values and position data from GPS receiver	RF values and position data from GPS receiver	RF values and position data from GPS receiver	RF values and position data from GPS receiver	. / .	Content- Analyser Application Software
	Channels	4 RF channels supported graphical display in user defined maps ASCII file format for automated conversion kml/kmz export into Google map applications	4 RF channels supported graphical display in user defined maps ASCII file format for automated conversion kml/kmz export into Google map applications	1 RF channel supported graphical display in user defined maps ASCII file format for automated conversion kml/kmz export into Google map applications	4 RF channels supported graphical display in user defined maps ASCII file format for automated conversion kml/kmz export into Google map applications	4 RF channels supported graphical display in user defined maps ASCII file format for automated conversion kml/kmz export into Google map applications	. / . . / . . / . . / .	
Demodulation	Standard	**DVB-S/-S2(x)**	**DVB-S/-S2(x)**	**DVB-S/-S2(x)**	**DVB-S/-S2(x)**		. / .	Content- Analyser Application Software
	Frequency Range	**(950 .. 2150) MHz**	**(950 .. 2150) MHz**	**(950 .. 2150) MHz**	**(950 .. 2150) MHz**			
	Level	**-69 dBm .. -23dBm /75 Ohm**	**-85 dBm .. +3dBm /50 Ohm**	**-85 dBm .. +3dBm /50 Ohm**	**-85 dBm .. +3dBm /50 Ohm**	. / .	. / .	
	SNR	30 dB (± 1)	30 dB (± 1)	30 dB (± 1)	30 dB (± 1)	. / .	. / .	
	Bit Errors	yes	yes	yes	yes	. / .	. / .	
	Eb/N0, Es /N0	yes	yes	yes	yes	. / .	. / .	
	Tx Parameters	yes	yes	yes	yes	. / .	. / .	
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, ETT) Analysis of DVB T2-MI Modulator Interface (DVB-T2) Analysis of DVB-T MIP Megaframe Initialisation Packets (DVB-T) Visualisation of PID Packet Identifiers, associated bit-rates, and bit-stuffing; bit rate logging 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, GOP structure display 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 in presence of errors (with history) Simultaneous measurements on different Transport Stream sources (multiple instances of the program run at the same time) Automated scanning algorithm with time scheduler and xml database output Scripting based Alarm and Report function – Relay interface available Remote capability with full SNMP support following the DVB MIB, including Traps						RF- Analyser Application Software
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	. / . . / .	RF- Analyser Application Software
PC configuration	Motherboard	Intel H chipset	Intel H chipset	Microsoft Surface Pro 4	bmp1000 minimum requirements:	XTASI modules minimum requirements:	XTASI modules minimum requirements:	RF- Analyser Application Software
	CPU	Intel Kaby-Lake 4-core i7-7700	Intel Kaby-Lake 4-core i7-7700	Intel Skylake i5				
	RAM	16GB DDR-4 2100	16GB DDR-4 2100	4GB DDR-4				
	Disk	SATA-III SSD >240 GB	SATA-III SSD >240 GB	PCIe SSD	Passmark CPU index:	Passmark CPU index:	Passmark CPU index:	
	Display	15.4 " 1440*900 or 1920*1200 WUXGA	. / .	12.3 " 2736*1824	PM >1000 analysis/single pgm decoding	PM >1000 analysis/single pgm decoding	PM >1000 analysis/single pgm decoding	
	Audio	2 speakers	. / .	2 speakers / headphone jack	PM >7000 analysis /10 pgm MV	PM >7000 analysis /10 pgm MV	PM >7000 analysis /10 pgm MV	
	Interconnection	hdmi, 4x USB-3	2x hdmi, 4x USB-3	Micro-DVI				
	Input devices	Keyboard / touchpad	. / .	Keyboard / touchpad	. / .	. / .	. / .	
	Network	Dual Ethernet (TCP/IP) 2x 1 Gbit/s	Dual Ethernet (TCP/IP) 2x 1 Gbit/s	Ethernet (TCP/IP) 1 Gbit/s	. / .	. / .	. / .	
	Operating System	Windows 10 professional 64bit	Windows 10 professional 64bit	Windows 10 professional 64bit	Windows 32bit or 64bit	Windows 32bit or 64bit	Windows 32bit or 64bit	
Mechanical Environmental	Dimensions (w x h x d)	(420 x 280 x 150) mm	19in x 1u x 250 mm	(300 x 280 x 100) mm	(210 x 170 x 44) mm	(42 x 15 x86 [100 incl. BNC connector]) mm	(42 x 15 x86 [100 incl. BNC connector]) mm	
	Weight	8 kg	4.5 kg	4.5 kg	< 1 kg	110 g	110 g	
	Power Supply	47..63 Hz; 90..260 V; 350 W 80+	47..63 Hz; 90..260 V; 250 W 80+	47 ... 63 Hz; 90 ... 260 V; 50 W	47..63 Hz; 90..260 V; 350 W	through USB	through USB	
	Operating Temperature	0 °C..+ 40 °C	0 °C..+ 40 °C	0 °C..+ 40 °C	0 °C..+ 40 °C	0 °C..+ 40 °C	0 °C..+ 40 °C	
	Storage Temperature	-20 °C..+ 50 °C	-20 °C..+ 50 °C	-20 °C..+ 50 °C	-20 °C..+ 50 °C	-20 °C..+ 50 °C	-20 °C..+ 50 °C	
	Relative Humidity	5% .. 85% (non-condensing)	5% .. 85% (non-condensing)	5% .. 85% (non-condensing)	5% .. 85% (non-condensing)	5% .. 85% (non-condensing)	5% .. 85% (non-condensing)	
	Shock	3 g max	3 g max	3 g max	3 g max			

Application Scenarios	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
Transmitter setup and maintenance	DVB-T/T2 terrestrial RF-input MER, MER vs Carriers Shoulder distance Frequency Offset	1, 2, 3, 4

Application Scenarios (contd)	recommended features	available in ABC product
Coverage	Off-air RF-input Field Strength Conversion Calibrated Antenna Map Display kml export multiple channels	1, 2, 3, 4, 5
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