

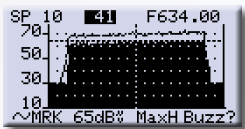
## THE MOST ADVANCED & ACCURATE ALL IN ONE FIELD METER

# mod. HD ONE STC (T2 & C2 opz.)



### MAIN FEATURES

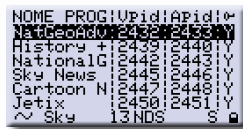
- CATV TUNER with extended band 4-1000 MHz
- SAT TUNER with extended band 930-2250 MHz
- Extended GSM band 860-1000 MHz for telephone repeater installations
- Exclusive patented ROVER **AUTODISCOVERY** system automatically recognises and selects analog TV and digital COFDM & QAM TV signals in both measurement and spectrum mode
- **Detects and measures all MPEG 4HD signals, show the Progr. List, Network Data, A/V PID & Encryption**
- Automatic quality analysis: FAIL-MARGINAL-PASS
- New ultra-bright graphics display
- Automatic and manual memory & Data Logger
- Weighs only 1 kg
- Up to 4 hour battery autonomy
- Battery test function to regenerate/measure battery levels and calibrate the indicator
- Supplied with soft bage for transport, mains adapter and 12 V vehicle adapter
- Free SW upgradeable on-line (USB-2 socket)



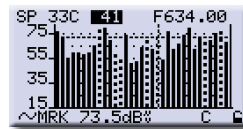
Fast digital TV spectrum with memory peak. **Detects and measures the details for you**



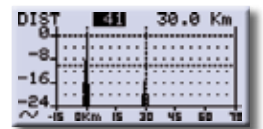
Costell. DVB-S2 = 8PSK, T = COFDM, C = QAM & modulation parameters



MPEG program list and A/V PID & Encryption Status



TV Bars Scan  
| = analog    :: = digital



Impulse response in real time (ECHOES & MICRO-ECHOES in "SFN" networks)

For technical specifications see the last pages

### Mod. HD ONE STC DVB-S & S2 / DVB-T, H (& T2 opt.) / DVB-C (& C2 opt.)/ DOCSIS D.S.

#### ULTRA-PORTABLE, ALL-IN-ONE, PROFESSIONAL ANALYZER, 4-2.250 MHz FOR SAT QPSK/8PSK-TV COFDM & CABLE QAM SIGNALS WITH ANALOG TV





- Pre-memorized Transponder navigation in all worldwide satellites and in all the worldwide standard TV & CATV channel plans
- Assisted satellite dish pointing, double input (DUAL LNB) dish pointing and Sat Finder functions
- All DiSEqC commands and SCR Ready with automatic search and USALS motor protocol
- Measures: Constellation, MER, MER Versus CARRIER (opt.), PER, LDPC, BCH, aBER, bBER, EVM, Noise Margin, Level/Power measurements and Spectrum Analyzer
- CABLE MEAS: DOCSIS downstream, INGRESS mode, LEAKAGE mode, BARS SCAN and TILT



Code	HD ONE "HW" OPTIONS
HD CABLE DVB-C2	HW and FW for DVB-C2. Demodulator for second generation Cable TV
HD DVB EUROPE	HW and SW for DVB CE, specify when ordering *
HD ATSC USA	HW and SW for 8VSB USA, specify when ordering *
HD GB20600 CHINA	HW and SW for CHINA Single and Multicarriers, specify when ordering *
HD ISDB-T JAPAN BRASIL	HW and SW for Standards in Japan and Brazil, specify when ordering *











\* Specify one standard when ordering, only one TV standard per country

Code	HD ONE "APP" (SW) OPTIONS
HD TV DVB-T2	APP for DVB-T2. Demodulator for second generation Terrestrial TV
HD TV MER versus CARRIER	APP for DVB-T & T2 MER versus CARRIER measurement
RIGHTS-SMART-1	APP for authorization code for the SMART PRO. SW, PC management, to create plans & download measurements

FEATURES FUNZIONI FUNKTIONEN FUNCIONES FONCTIONS		HD ONE <sub>stc</sub>	HD SAT <sub>s2</sub>	HD TV <sub>t</sub>	HD CABLE <sub>c</sub>	
						
EXCLUSIVE ROVER INSTRUM. FUNCTIONS	COMPLETE, SIMPLE, EASY-TO-USE	•	•	•	•	
	16:10 LED TFT DISPLAY, HIGH BRIGHTNESS	GRAPHIC DISPLAY	GRAPHIC DISPLAY	GRAPHIC DISPLAY	GRAPHIC DISPLAY	
	"LI-ION-POLIMER" BATTERIES, hours capacity	5 h	5 h	5 h	5 h	
	TOUCH &/or CLASSIC &/or COMBINED COMMANDS	MECHANICAL	MECHANICAL	MECHANICAL	MECHANICAL	
	MAXIMUM ERGONOMICS and OPERATING SAFETY	•	•	•	•	
	SIX SELECTABLE LANGUAGES: UK-IT-FR-ES-DE-PO	•	•	•	•	
	MULTI MEASUREMENTS: Spect, Meas, Picture, Echoes, Constell.					
	AUTODISCOVERY Analog./Digital and TV/CATV	•	•	•	•	
	AUTOQUALITY Fail-Marginal-Pass	•	•	•	•	
	AUTOMEMORY Automatic memorization TV and CATV	•	•	•	•	
	MANUMEMORY Mixed Memoriz., SAT-TV-CATV and RD	•	•	•	•	
	HELP FUNCTION with Auto lock in SAT, CATV and SPECTRUM	•	•	•	•	
	SAT-TV-CATV DIRECT SELECTION	•	•	•	•	
	TV & CATV SEPARATE CHANNEL PLANS	•	•	•	•	
	DVB-S/S2 AUTOMATIC SELECTION	•	•	•	•	
	DVB-T/T2 AUTOMATIC SELECTION	•	•	•	•	
	SEPARATE MENUS for EACH FUNCTION	•	•	•	•	
	DRIVE ALL LNB's & MULTISWITCHES DiSeqC & SCR	•	•	•	•	
	ALL MAIN WORLDWIDE SATELLITES & TRANSPONDERS PRE-STORED	•	•	•	•	
	SATEXPERT FUNCTION, SAT pointing in 1 sec.	opt.	opt.			
BANDS	Extended SAT BAND - MHz					
	TV & RD BAND - MHz	TV 41-887		TV 41-887	TV 41-887	
	CATV extended BAND & return path - MHz				TV 4 – 1.000	
	GSM TELECOM BAND - MHz			860 – 1.000	860 – 1.000	
RF FILTERS	REJECTION FILTERS for "LTE" BAND - MHz					
CONNECT	INTERCHANGEABLE RF CONNECTOR	•	•	•	•	
OPTICS	OPTICAL INPUT, FC, ST, SC INTERCHANGEABLE CONNECTOR					
WORLD STANDARD SATS	SAT	DVB-S	•	•		
		DVB-S2	•	•		
		DVB-S2 MULTISTREAM				
	TV	DVB-T	•		•	
		DVB-T2	opt.		opt.	
		ATSC USA	ON REQUEST		ON REQUEST	ON REQUEST
		GB20600 CHINA	ON REQUEST		ON REQUEST	ON REQUEST
		ISDB-T JAPAN & BRAZIL	ON REQUEST		ON REQUEST	ON REQUEST
	ANALOG TV WW STANDARD "CCIR" B-G-D-K-L-M-N		•	•	•	•
	CATV	DVB-C & annex A	•		•	
		DVB-C & annex B	•		•	
		DVB-C2	opt.			opt.
VIDEO	MPEG 2 SD					
	MPEG 2 & 4 HD	Net. Id. Program. List	Net. Id. Program. List	Net. Id. Program. List	Net. Id. Program. List	
	HDMI OUTPUT					
	ANALOG VIDEO INPUT ANALOG VIDEO OUTPUT					
AUDIO	"AAC" AUDIO "DOLBY+" AUDIO					
	ANALOG AUDIO INPUT ANALOG AUDIO OUTPUT					
	TRANSP. STREAM	T.S. ASI INPUT T.S. ASI OUTPUT (Decoded via C.I.) T.S. READER/RECORDER via LAN/PC INTERNAL T.S. ANALYZER C.I. DESCRAMBLER				
		GPS	GPS RECEIVER USB 10 MHz from GPS INPUT 1 PPS from GPS INPUT			
OTHERS			USB On The GO for MEMORY STICK Free SW UPGRADES LAN ETHERNET BATTERY TEST FUNCTION BATTERY SAVE FUNCTION DiSeqC, SCR, USALS MOTOR			










<b>MEASUREMENTS MISURE MASSNAHMEN MEDIDAS MESURES</b>		<b>HD ONE<sup>stc</sup></b>	<b>HD SAT<sup>s2</sup></b>	<b>HD TV<sup>t</sup></b>	<b>HD CABLE<sup>c</sup></b>
EXCLUSIVE ROVER INSTRUM. MEASUREMENT	MAXIMUM MEASUREMENT SPEED & CHAN/FREQ. SELECTION	•	•	•	•
	REAL TIME SPECTRUM with MAX MEMORY PEAK	•	•	•	•
	MULTI MEASUREMENTS: Spect, Meas, Picture, Echoes, Constell				
	AUTOMATIC MEASUREMENTS: DIG. Power/ANALOG Level	•	•	•	•
	NUMERICAL MEAS & LINEAR with BARS and with MEMORY PEAK	•	•	•	•
	BARSCAN & TILT, LEVEL BAR CHART from 1 to 100 Channels	•	•	•	•
	MAX READING CLARITY of MEASUREMENT PARAMETERS	•	•	•	•
	ANALYSIS of LOSSES in DISTRIBUTION NETWORKS SAT-TV-CATV	•	•	•	•
	PROFESSIONAL MEAS for BROADCASTERS & MANUFACTURERS				
	ECHOES-PREECHOES-MICROECHOES in real time	•		•	
	SUGGESTED MEASUREMENT VALUES printed on lightshield	•	•	•	•
	CATV MEASUREMENTS: LEAKAGE, INGRESS, RETURN PATH	•			•
	REFLECTOMETER MEAS. for COAX CABLES (Interruption Distance)				
DVB-S/S2	•	•			
MER MEASUREMENT	DVB-T/T2	opt.		opt.	
	DVB-C/C2	opt.			opt.
	MER versus CARRIERS in DVB-T & T2	opt.		opt.	
	bBER (pre) - aBER MEASUREMENT (Post Error Correction)	•	•	•	•
	CONTINUOUS ERROR COUNTER	•	•	•	•
DVB (S-T-C) MEASUREMENT	NOISE MARGIN MEASUREMENT, SAT, TV & CATV	•	•	•	•
	AUTOMATIC QUALITY MEASUREMENT (Fail, Marginal, Pass)	•	•	•	•
	CONSTELLATION REPRESENTATION with ZOOM	•	•	•	•
	ECHOES-PREECHOES-MICROECHOES REPRESENTATION in real time	•		•	•
	NET ID, CID, NID, TSID & LCN TABLES	•	•	•	•
DVB-2 (S2-T2-C2) MEASUREMENT	PER (packet error ratio)	•	•	•	•
	LDPC (post error correction)	•	•	•	•
	BCH (pre error correction)	•	•	•	•
	CONTINUOUS ERROR COUNTER	•	•	•	•
	AUTOMATIC QUALITY MEASUREMENT (Fail, Marginal, Pass)	•	•	•	•
	CONSTELLATION REPRESENTATION with ZOOM & ROTATION	•	•	•	•
	ECHOES-PREECHOES-MICROECHOES REPRESENTATION in real time	•		•	•
	NET ID, CID, NID, TSID & LCN TABLES	•	•	•	•
	MULTI PLP (T2) SELECTION				
LEVEL- POWER MEASUREMENT	LEVEL MEASUREMENT, Simultaneous with Picture & digital Meas	Level only	Level only	Level only	Level only
	Average POWER MEASURE, Simultaneous with Picture & digital Meas	Level only	Level only	Level only	Level only
SPECT ANALYSIS	REAL TIME SPECTRUM with MEMORY PEAK and AUTORANGING	•	•	•	•
	SELECTABLE SPECTRUM SPEED (Sweep Rate)				
	POSSIBILITY of STORING SAT, TV & CATV SPECTRUMS				
	DYNAMIC RANGE SPECT 60 dB, SELECT. 1-2-5-10 dB/DIV.				
	SAT/TV/CATV SEPARATE SPANS				
OPTIC MEASUR (opt.)	SPECTRUM VIEW SELECTION: Full or Contours				
	SPECIAL FUNCTIONS Δ MRK & BW for Filter Calibration				
	OPTIC POWER MEASUREMENTS				
	OPTIC LOSS AUTOMATIC CALCULATION				
TRANSPORT STREAM	OPTIC/ELECTRIC CONVERTER for Spect & Meas, SAT & CATV				
	INTERCHANGEABLE FC-ST-SC OPTICAL CONNECTOR				
	T.S. ANALYZER/READER with ASI IN/OUT opt.				
LCN	INTERNAL T.S. ANALYZER (FPGA)				
	Video & Audio RATE				
	LCN program numbers list				

# "HD FAMILY" SAT-TV-CATV & OPTIC METER - Technical Specifications

		SIZE (mm) H-L-D	115x245x180	115x245x180	115x245x180	115x245x180	225x130x65	165x225x80	165x225x80	165x225x80	165x225x80	165x225x80									
<b>MAIN SPECIFICATIONS</b>	WEIGHT (Kg)	3	2.5	2.5	2.5	2.5	1.6	1.4	1.2	1.2	1.2	1.2									
	Soft Bag Protection	●	●	●	●	●	●	●	●	●	●	●									
	Battery Duration (hours)	6 hours	8 hours	8 hours	8/10 hours	6 hours	6 hours	4 hours	4 hours	4 hours	4 hours	4 hours									
	Graphics Display Multi-language	●	●	●	●	●	●	●	●	●	●	●									
	TFT Color Display	10" Color 16:10 TOUCH SCREEN	7" Color 16:10 TOUCH SCREEN	7" Color 16:10 TOUCH SCREEN	7" Color 16:10	4,3" Color 16:10	3,5" Color 4:3														
	MEMORY	Total Logger	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED								
		PROGS per PLAN	199	199	199	199	199	199	199	199	199	199	199								
		Total PLANS	99	99	99	99	99	99	99	99	99	99	99								
	Tuning System and NAVIGATION	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect								
	Level Accuracy (dB)	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV								
Dynamic Range dBuV-(dBmV-dBm)	30 - 126 SAT 5 - 126 TV	30 - 126 SAT 5 - 126 TV	30 - 126 SAT 5 - 126 TV	30 - 126 SAT 5 - 126 TV	30 - 115 SAT 5 - 115 TV	30 - 115 SAT 5 - 115 TV	30 - 115 SAT 5 - 115 TV	30 - 115 SAT 5 - 115 TV	30 - 115 SAT 5 - 115 TV	30 - 115 SAT 5 - 115 TV	30 - 115 SAT 5 - 115 TV	30 - 115 SAT 5 - 115 TV									
<b>SPECIAL FUNCTIONS</b>	USB & SW Upgrades via Internet	● USB2 O.T.G.	● USB2 O.T.G.	● USB2 O.T.G.	● USB2 O.T.G.	● USB2	● USB2	● USB2	● USB2	● USB2	● USB2	● USB2									
	NAVIGATION ENCODER & NUMERIC KEYPAD	●	●	●	●	●	●	●	●	●	●	●									
	TRANSPONDER DIRECT NAVIGATION	●	●	●	●	●	●	●	●	●	●	●									
	NETWORK DATA & PROGRAM. NAMES	●	●	●	●	●	●	●	●	●	●	●									
	TV PROGRAMS AUTOMEMORY	●	●	●	●	●	●	●	●	●	●	●									
	DRIVER for LNB S.C.R.	●	●	●	●	●	●	●	●	●	●	●									
	DiSeqC a-b-c-d & USALS MOTOR	●	●	●	●	●	●	●	●	●	●	●									
	Dual LNB SAT POINTER	●	●	●	●	●	●	●	●	●	●	●									
	SAT EXPERT	● opt.	● opt.	● opt.	● opt.	● opt.	● opt.	● opt.	● opt.	● opt.	● opt.	● opt.									
	REMOTE POWER SUPPLY VOLTAGES	●	5V-12V-18V-24V	5V-12V-18V-24V	5V-12V-18V-24V	5V-12V-18V-24V	5V-12V-18V-24V	5V-12V-18V-24V	5V-12V-18V-24V	5V-12V-18V-24V	5V-12V-18V-24V	5V-12V-18V-24V									
	BARSCAN and TILT	●	●	●	●	●	●	●	●	●	●	●									
	INGRESS and LEAKAGE	●	●	●	●	●	●	●	●	●	●	●									
	<b>AUDIO-VIDEO</b>	CVBS & HDMI	●	●	●	●															
DIRECT CONDIT. ACCESS SYSTEM		●	●	●	●																
AN. TV SOUND and RADIO		●	●	●	●	●	●														
ANALOG TV PICT		●	●	●	●	●	●	Network Id PROG & PID only	Network Id PROG & PID only	Network Id PROG & PID only	Network Id PROG & PID only	Network Id PROG & PID only									
MPEG2 & 4 HD DECODER		●	●	●	●	●	●	Network Id PROG & PID only	Network Id PROG & PID only	Network Id PROG & PID only	Network Id PROG & PID only	Network Id PROG & PID only									
MPEG2 DECODER		●	●	●	●	●	●														
<b>MEASUREMENTS</b>	SPECTRUM ANALYSIS with MEMORY PEAK	● REAL TIME	● REAL TIME	● REAL TIME	● REAL TIME	● REAL TIME	● REAL TIME	● REAL TIME	● REAL TIME	● REAL TIME	● REAL TIME	● REAL TIME									
	DIGITAL QUALITY FAIL-MARG-PASS	●	●	●	●	●	●	●	●	●	●	●									
	CONSTELLATION & REAL TIME ECHOS	●	●	●	●	●	●	● Constellation	●	●	●	●									
	DEMODULATED M.E.R.-B.E.R.-P.P.R.-SNR-EVM NOISE MARGIN	Optical IN & IPTV	● opt. Optic	● opt. Optic ● opt. IPTV	● opt. Optic	● opt. Optic															
		QAM	●	●	●	●	●	●	●	●	●	●	●								
		COFDM	● T2 ON BOARD	● T2 ON BOARD	● T2 ON BOARD	● T2 opt.	● T2 opt.	● T2 opt.	● T2 opt.	● T2 opt.	● T2 opt.	● T2 opt.	● T2 opt.								
		8PSK	●	●	●	●	●	●	●	●	●	●	●								
QPSK	●	●	●	●	●	●	●	●	●	●	●										
INPUT CONNECTOR	"N" 50 Ω	"N" 50 Ω	F - BNC - IEC	F - BNC - IEC	F - BNC - IEC	F - BNC - IEC	F - BNC - IEC	F - BNC - IEC	F - BNC - IEC	F - BNC - IEC	F - BNC - IEC										
<b>FREQUENCY RANGE</b>	BAND	SAT	930-2.250 MHz	930-2.250 MHz	930-2.250 MHz	930-2.250 MHz	930-2.250 MHz	930-2.250 MHz	930-2.250 MHz	930-2.250 MHz											
		TV	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	40-1.000 MHz	40-1.000 MHz									
		CATV	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz			4-1.000 MHz									
		RADIO	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz													
<b>MIROVER MODEL</b>		<b>HD TAB STC01</b>		<b>HD PRO STC01</b>		<b>HD TOUCH STC01</b>		<b>HD FLASH STC01</b>		<b>HD COMPACT STC</b>		<b>HD LIGHT STC</b>		<b>HD ONE STC</b>		<b>HD SAT</b>		<b>HD TV</b>		<b>HD CABLE</b>	



# "STANDARD" SAT-TV-CATV & OPTIC METER - Technical Specifications

		SIZE (mm) H-L-D	115x245x180	115x245x180	215x225x115	195x225x80	165x225x80	165x225x80	165x225x80	65 x 226 x 105	65 x 226 x 105	215 x 125 x 60		
		MAIN SPECIFICATIONS		WEIGHT (Kg)	2.5	2.5	2.2	1,4	1.2	1.2	1.1	1.1	1.1	1.3
Soft Bag Protection	●			●	●	●	●	●	●	●	●	●	●	
Battery Duration (hours)	2 to 3 hours			2 to 3 hours	3 to 4 hours	4 hours	4 hours	4 hours	4 hours	4.5 hours	2.5 hours	2.5 hours	4 hours	
Graphics Display Multi-language	64 x 128 high brightness							64 x 128 high brightness	64 x 128 high brightness	64 x 128 high brightness	64 x 128 high brightness	64 x 128 high brightness	64 x 128 high brightness	
TFT Color Display	4.5" Color			6.5" Color 16:9 TOUCH SCREEN	4,4" Color		3,1" LIGHT 3,5" LIGHT PLUS							3.5" Color
MEMORY	Total Logger			99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99 ITC FENITEL APPROVED	99	99	99
	PROGS per PLAN			199	199	199	199	199	199	199	199	1	199	199
	Total PLANS			99	99	99	99	99	99	99	99	9	99	99
Tuning System and NAVIGATION	Transp./ Ch./ Freq./ Prog. in Meas and Spect			Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Transp./ Ch./ Freq./ Prog. in Meas and Spect	Chan./ Freq./ Prog. in Meas and Spect	Chan./ Freq./ Prog. in Meas and Spect	Chan./ Freq./ Prog. in Meas and Spect	Chan./ Freq./ Prog. in Meas and Spect	Chan./ Freq./ Prog. in Meas and Spect
Level Accuracy (dB)	1.5 Typ. SAT 1.0 Typ. TV			1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.5 Typ. SAT 1.0 Typ. TV	1.0 Typ.	1.0 Typ.	1.0 Typ.	1.0 Typ.	1.0 Typ.
Dynamic Range dBuV-(dBmV-dBm)	30 - 126 SAT 5 - 126 TV			30 - 126 SAT 5 - 126 TV	30 - 126 SAT 5 - 126 TV	30 - 126 SAT 5 - 126 TV	30 - 126 SAT 5 - 126 TV	30 - 126 SAT 5 - 110 TV	30 - 126 SAT 5 - 110 TV	5-110 dBuV	5-110 dBuV	5-110 dBuV	0-126 dBuV	0-126 dBuV
SPECIAL FUNCTIONS	USB & SW Upgrades via Internet			● USB2	● USB2	● USB2	● USB2	● USB2	● USB2	●	● USB2	●	● USB2	● USB2 O.T.G.
	NAVIGATION ENCODER & NUMERIC KEYPAD	●	●	●	●	●	●	●	●	●	Numeric KEYPAD	Numeric KEYPAD		
	TRANSPONDER DIRECT NAVIGATION	●	●	●	●	●	●	●	●	●	●	●		
	NETWORK DATA & PROGRAM. NAMES	●	●	●	●	●	●	●	●	●	●	●		
	TV PROGRAMS AUTOMEMORY	●	●	●	●	●	●	●	●	●	●	●		
	DRIVER for LNB S.C.R.	●	●	●	●	●	●	●	●	●	●	●		
	DiSEqC a-b-c-d & USALS MOTOR	●	●	●	●	●	●	●	●	●	●	●		
	Dual LNB SAT POINTER	●	●	●	●	●	●	●	●	●	●	●		
	SAT EXPERT	●	● opt.	● opt.	● opt.	● opt.	● opt.	● opt.	●	●	●	●		
	REMOTE POWER SUPPLY VOLTAGES	5V-12V-18V-24V	5V-12V-18V-24V	5V-12V-18V-24V	5V-12V-18V-24V	5V-12V-18V-24V	5-12V-18V-24V	5-12V-18V-24V						
	BARSCAN and TILT	●	●	●	●	●	●	●	●	●	●	●	●	
	INGRESS and LEAKAGE	●	●	●	●	●	●	●	●	●	●	●	●	
AUDIO-VIDEO	CVBS & HDMI	●	●	●	●	●	●	●	●	●	●	●		
	DIRECT CONDIT. ACCESS SYSTEM	●	●	●	●	●	●	●	●	●	●	●		
	AN. TV SOUND and RADIO	●	●	●	●	●	●	●	●	●	●	●		
	ANALOG TV PICT	● SAT and TV Analog Picture	●	●	●	●	●	●	●	●	●	●		
	MPEG2 & 4 HD DECODER	●	● opt.	●	●	●	●	●	●	●	●	●		
	MPEG2 DECODER	●	●	●	●	●	●	●	●	●	●	●		
MEASUREMENTS	SPECTRUM ANALYSIS with MEMORY PEAK	●	●	●	●	●	●	●	●	●	●	●		
	DIGITAL QUALITY FAIL-MARG-PASS	●	●	●	●	●	●	●	●	●	●	●		
	CONSTELLATION & REAL TIME ECHOS	●	●	●	●	●	●	●	●	●	●	●		
	DEMODULATED M.E.R.-B.E.R.-PER-SNR-EVM NOISE MARGIN	Optical IN & IPTV	● Opt. Optical input & IPTV	●	●	●	●	●	●	●	●	●	● Optical IN	
		QAM	●	●	●	●	●	●	●	●	●	●	● QAM & CABLE MODEM DOCSIS 2.0	
		COFDM	● T2 opt.	● T2 opt.	● T2 opt.	● T2 opt.	●	●	●	●	●	●	● QAM & CABLE MODEM DOCSIS 3.0	
8PSK		●	●	●	●	●	●	●	●	●	●	●		
QPSK	●	●	●	●	●	●	●	●	●	●	●			
INPUT CONNECTOR	F - BNC - IEC	F - BNC - IEC	F - BNC - IEC	F - BNC - IEC	F - BNC - IEC	F - BNC - IEC	F - BNC - IEC	F - BNC - IEC	F	F	F			
FREQUENCY RANGE	BAND	SAT	930-2.250 MHz	930-2.250 MHz	930-2.250 MHz	930-2.250 MHz	930-2.250 MHz	930-2.250 MHz						
		TV	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz		47-1.000 MHz	4-1000 MHz	4-1000 MHz	4-1000 MHz		
		CATV	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz		4-1.000 MHz	4-1000 MHz	4-1000 MHz	4-1000 MHz		
		RADIO	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz	4-1.000 MHz		4-1.000 MHz	4-1000 MHz	4-1000 MHz	4-1000 MHz		
MODEL		ATOM HD STCOOL												
		DIGICUBE STC												
		ATOM POWER STC												
		ATOM LIGHT/+ STC												
		MASTER STC												
MODEL		MASTER SAT 2												
		MASTER CABLE												
		FAST-C												
		OMNIA-7 DOCSIS 2.0												
		OMNIA-10 DOCSIS 3.0	