



User Guide



Important Safety Notice

Thank you for purchasing this Antiference signal analyser product. Please read the following instructions carefully, retain for future reference and read the following safety considerations:

- I. Do not place any items on the device
- 2. Ensure no liquids are on or near the device as splashes may damage the unit
- 3. For cleaning, use a damp cloth only without solvents
- 4. Do not attempt to open the case as there is a danger of electric shock
- 5. Repairs should be carried out by a qualified technician
- 6. Keep the protective jacket in place while using the meter
- 7. Store the meter in the carry case when not in use to protect the screen from damage
- 8. Use only the supplied power supply as 3rd party products may damage the product

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1. Introduction

The Antiference ASM03 is a signal analyser for satellite and terrestrial signals. It features an 5 inch TFT LCD display and simple to use menu system. It supports DVB-S/S2/DVB-T/T2/DVB-C. Modes of use include a spectrum function, real time constellation display, TP search and blind search. In addition there is an audio video in/out function and HDMI in/out for monitor or CCTV installation plus I2V DC line output powering for installing with a pre-amplifier (masthead).

2. Features

- 5 inch TFT LCD display
- Supports DVB-S/S2/DVB-T/T2/DVB-C.
- Video decoding: MPEG2/4, H.264, HVEC/H.265
- Audio decoding: MPEG-1, MPEG-2, ISO/IEC 13818-3 LAYER I&II
- Measurement values MER, dbµV, VBER, CBER, LBER
- Internet connection with USB WiFi dongle (available from 3rd party supplier)
- Signal lock audible notification
- CVBS input/output (CCTV)
- USB interface for firmware updates and PVR function
- HDMI input/output (CCTV)
- LED flashlight
- Li-ion battery 4000mAh@12.6V
- OSD with multi-languages
- Loudspeaker for audio playback
- Protective case
- Power supply 100-240V/50/60Hz 12V 3000mA

3. Package contents

- I. ASM03 Signal Meter
- 2. I2V 3000mA Mains Charger with 3 Pin UK Plug
- 3. I2V In-Car Charger
- 4. Soft Carry Case
- 5. RF Connector Adaptors
- 6. Shoulder Strap
- 7. User Guide

4. Front & Top Panel Layouts

4.1. Top Panel Description



- I. Satellite LNB input
- 2. Terrestrial RF input
- 3. USB 2.0
- 4. HDMI output
- 5. AV output
- 6. AV input
- 7. Reset button
- 8. DC input
- 9. HDMI input

4. Front & Top Panel Layouts (cont)

4.2. Front Panel Description



- I. Power on switch
- 2. Power indicator
- 3. Battery indicator
- 4. 13V indicator
- 5. 18V indicator
- 6. 22KHz tone indicator
- 7. Signal lock indicator
- 8. FI-F4 Shortcut keys
- 9. Numeric keys
- 10. GOTO select satellite or transponder
- 11. LIGHT long press to activate LED flashlight
- 12. SCREEN signal source switching
- 13. MUTE turn audio on or off
- 14. SPEC shortcut to spectrum
- 15. CONS shortcut to constellation
- 16. FIND shortcut to satellite finding
- 17. ANGLE shortcut to angle calculation
- 18. Arrow keys to navigate menu
- 19. OK confirm key
- 20. MENU shortcut to main menu
- 21. EXIT exit current menu
- 22. Current signal quality
- 23. LCD screen

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4. Front & Top Panel Layouts (cont)

4.3. Rear Panel Description



- I. LED flashlight
- 2. Desk stand
- 3. Loudspeaker
- 4. Battery compartment
- 5. Carry handles

5. Main Menu

5.1 Main menu navigation

When the ASM03 is first powers up, the main menu will automatically appear. Use this menu to navigate to the various sub menus in DVB-S, DVB-T and settings etc.



6. DVB-S/S2 Mode

6.1. Satellite Finding

Highlight DVB-S in the main menu to access the satellite finding option. Press $\left[\mathsf{OK}\right]$ to enter the menu.





6.1. Satellite Finding (cont)

With the satellite option highlighted, press [OK] to select the channel plan. Press $[\blacktriangle/\nabla]$ to select the required satellite channel plan. Press [OK] to select.

013.1E		
Satellite LNB Type Freq Symbol Polarity 22KHz	NowCat1 055 008.0W Ku_ATLANTIC BIRD 2 056 004.0W Ku_AMOS 2,3 057 070.3E Ku_NSS 703 058 138.0E Ku_TELSTAR 18 059 013.1E C_NewSat1	pl.: -90.0 El: 74.6 B Lock dBuv
DiSEqC Search S: Q:	TP (1.52.1.55)	66 %

Press [OK] on the LNB type option. Press $[\blacktriangle/\nabla]$ to select the LNB type and press [OK] to confirm.

013.1E			
Satellite	NowSat1		: -90.0
LNB Type	9750/10600	E1:	74.6
Freq	9750/10750		Lock
Symbol	05150	-	~
Polarity	05750		
22KHz	09750		
DiSEqC	2/4		: 5.8 db
Search	ТР	0.00E+00 ME	R: 5.0 db
S:			66 %
Q: 📕			32 %



6.1. Satellite Finding (cont)

Press [OK] on Freq to see the symbol rate and polarity options. Using the keypad, type in the frequency, symbol rate & polarity. Press [OK] to confirm.

013.1E	1		
Satellite LNB Type Freg	NowSat1 001 4173 H 9201 002 4148 H 6148	FFC. 34	pl. : -90.0 1: 74.6
Symbol Polarity	003 4116 H 21375 004 4097 H 9991		
22KHz DiSEqC Search	Off 2/4 TP	a.BER 3.02E+04	C/N: 5.0 db MER: 5.0 db
S:			66 %

When a signal lock is reached, the buzzer will sound with fastest repetition. The signal quality bar is displayed on the LCD and the LOCK LED will light. Press [OK] on the search option to scan for channels on the selected TP. It will switch to the Program Page after the search is complete.

01/01 NewSat1		
4159MHz H 8681kHz		
DTV: 0002	Radio: 0015	
0001 NMTV-H	0008 nmyinyue	
0002 NMTV-M	0009 nmjingji	
	0010 HMMY	
	0011 HMHY	
	0012 AMMY	
	0013 AMHY	
	0014 XMMY	
	0015 XMHY	
	2%	



6.2. Dish Setting

Move cursor to Dish Setup and press [OK].

057 070.3E Ku_NSS 703	LNB Type	05150
058 138.0E Ku_TELSTAR 18	LNB Power	13/18V
059 013.1E C_NewSat1	22KHz	Off
	Toneburst	None
	DiSEqC1.0	LNB2
	DiSEqC1.1	None
	Motor	None

In the satellite list page, press $[\blacktriangle/\nabla]$ to select the required satellite channel plan. Press [F1] to add a new satellite with satellite name, longitude direction, longitude angle or band.

Satellite	IC Net	wSat2d	
057 070.3E Ku_NS	No.	060	05150
058 138.0E Ku_TE	Satellite Name	NewSat2	> 13/18V
059 013.1E C_Nev	Longitude Direction	East	Auto
	Longitude Angle	013.2	None
	Band	с	None
			None
	Moto		None



6.2. Dish Setting (cont)

Press [F2] to edit an existing satellite channel plan. Options include satellite name, longditude direction, longditude angle or band.

	C Ne	wSat1	_
057 070.3E Ku_N	Ed	it	05150
058 138.0E Ku_TE	No.	059 NowEat1	13/18V
059 013.1E C_Ne	Longitude Direction	East	Off
	Longitude Angle	013.1	None
	Band	с	LNB2
			None
	Moto	r	None

Press [F3] to delete an existing satellite channel plan. Select the satellite channel plan to be deleted and press [OK]. Press [EXIT] to return to the previous menu

Dish Setup		
057 070.3E Ku_NSS 703	LNB Type	05150
058 138.0E Ku_TELSTAR		13/18V
059 013.1E C_NewSat1	Confirm	Off
		None
	Do you want to delete this?	LNB2
	DiSEqC1.1	None
	Motor	None
Quality 0000000		
EXIT (💌 Confirm	



6.2. Dish Setting (cont)

Press [F4] to start a scan. Select the required scan mode from the options.

Satellite				
057 070.3E Ku_NSS	/	Channel Search		05150
058 138.0E Ku_TELS	Scan Mode	< Default	>	13/18V
059 013.1E C_NewSa	t Crypted	All Channels		Off
	Service Type	All		None
		DISEQC1.0		LNB2
		DiSEqC1.1		None
		Motor		None

Press [GOTO] to access the TP list. [F1], [F2], [F3] & [F4] can be used to add, edit, delete or begin the scan of the selected TP. Press [GOTO] to return to the satellite list.

001 4172 H 9199	LNB Type	05150
002 4148 H 6148	LNB Power	13/18V
003 4116 H 21375	22KHz	Off
004 4098 H 9991	Toneburst	None
005 4069 H 9984	DiSEqC1.0	LNB2
006 4035 H 19579	DiSEaC1.1	None
007 3972 H 10000 008 3950 H 11407	Motor	None



6.2. Dish Setting (cont)

Select a satellite and press $[\blacktriangleleft / \blacktriangleright]$ to choose the LNB type. Press $[\blacktriangle / \blacktriangledown]$ to select the LNB type from the options.

Satellite	
057 070.3E Ku_NSS 703	LNB Type (05150
058 138.0E Ku_TELSTAR 18	9750/10600
059 013.1E C_NewSat1	9750/10750 05150 05750 09750 09750 10600 10750
	Motor None

Select LNB power by pressing $[\triangleleft / \blacktriangleright]$. Select 22KHz tone AUTO/ON/OFF. Press to chose the LNB type. Press $[\triangleleft / \blacktriangleright]$ to choose the Toneburst Press $[\triangleleft / \blacktriangleright]$ to choose DiSEqC 1.0 Press $[\triangleleft / \triangleright]$ to choose DiSEqC 1.1 Press $[\triangleleft / \triangleright]$ to select motor options

6.3. Angle Calculation

Move cursor to Angle Calculation and press [OK] to enter the menu.



Press[4 / b] on Satellite option to select the existing satellite, the longitude of the satellite will be changed correspondingly.

Press[\blacktriangle/∇] on Sat Longitude option, you can use the keypad to input the required satellite longitude.

If you select Manual, you can move cursor to the Local Longitude and the Local Latitude and use the keypad to input the required number.

Press $[\blacktriangleleft / \blacktriangleright]$ to select east or west local longitude, south or north Hemisphere. When a parameter has changed, the system will calculate the result and will show the picture on the screen automatically.

6.4. Constellation Analyzer

Move cursor to Constellation Analyzer and press [OK].

Constella	tion	Analyze	r	
Satellite	<	NewSat1		
TransPonder		1 of 38		
Freq		4172		
Symbol Rate		9199		
Polarity				

Press [4 / b] to select satellite channel plan. Changes will be displayed accordingly. Press [4 / b] to select Transponder. Changes will be displayed accordingly.

Press [OK] to see the quality and strength bar.

Press $[\blacktriangle/ \nabla]$ to switch between frequencies of selected channel plan.

		Co	onstellat	ion A	nal	yzer 🗾
	001		QUA			n
CF:	4172 M					
SR:	9199 K					
POL						
MOD:	QPSK					
NewSati			32%	66%		
C/N: 6.3	db a	.BER:	9.22E+04	FEC:	3/4	MER: 5.1 db



7. DVB-T/T2 Mode

7.1. Terrestrial Mode

Move cursor to DVB-T2 option and press [OK]



Press $[\blacktriangle/\nabla]$ on Manual Search and press [OK] to see the following menu:

Frequency channel Frequency(MHz)	474.0	PWR:	88.0 dBu
Bandwidth:		SNK:	Lock
BER	0.00E+00	Constellation	64QAM
Guard Interval	1/128		32K
Code Rate	1/2	T2 Version	V1.11
Quality			100%



x∎

8. DVB-C Mode

8.1. Cable TV Mode

Move cursor to DVB-C and press [OK].



Press $[\blacktriangle/V]$ on Manual Search and press [OK] to see the following menu:





9. Spectrum Mode

9.1. Spectrum Mode

Move cursor to Spectrum and press [OK].



Press [F1] to switch SPAN of spectrum frequency, FULL is default, Adjusting the span will show clearer detail of the spectrum.

Press [F4] to pause current status.

Press $[\blacktriangle/ V]$ to move vertical coordinate's position.

Press $[\blacktriangleleft / \blacktriangleright]$ to move cursor to select frequency, the signal strength of the selected frequency will be displayed on the left-top corner.

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DVB-S/DVB-T/DVB-C are all supported in spectrum mode.

10. Multimedia Mode

10.1 Multimedia Main Menu

Plug a USB device into the USB 2.0 port and select Multimedia mode. Press [OK].



Press $[\blacktriangle/\nabla]$ in multimedia menu and then press [OK] to see the following menu.





ASM03

10. Multimedia Mode (cont)

10.1 Multimedia Main Menu (cont)

Press $[\blacktriangleleft / \blacktriangleright]$ to select the required menu option. Press [OK] to select the relevant file.



Press $[\blacktriangleleft / \blacktriangleright]$ to select the PVR option and press [OK]. Press $[\blacktriangle / \blacktriangledown]$ to select the [HBPVR] file and press [OK]. The recorded file will show in the menu.



It is possible to back up the satellite channel plan to USB should a factory reset be required.



11. Settings

II.I. Settings Main Menu

Move cursor to Settings and press [OK].

Program	Picture
EPG	Option
Device Setup	Time
System	USB Upgrade

II.2. Program Menu

Move cursor to Program and press [OK].





II.2. Program Menu (cont)

Press $[\blacktriangle/V]$ on Program Edit option and press [OK]. Enter default password 000000 to see the TV channel list.

001 NMTV-	н	
002 NMTV-	м	
003 HubeiT		
004 CCTV 4		
005 CGTN		
006 CGTN #		
007 CGTN 8		
008 CGTN F		

To move a channel press $[\blacktriangle/V]$ on the channel list to select a channel. Press [RED/F1] to select channel to move.

Press $[\blacktriangle/ V]$ to move the cursor to the required position and press [OK]. Press [EXIT] to save changes.

		1994	
001 NMTV-H			
002 NMTV-M			1
003 HubeiTV			STOT 3
004 CCTV 4A		11	Part tentent rest
005 CGTN	5		
006 CGTN F			
007 CGTN E			
008 CGTN R			

II.2. Program Menu (cont)

To lock a channel press $[\blacktriangle/\nabla]$ on the channel list to select a channel.

Press [YELLOW/F3] to select channel to lock. Enter the default password (000000).

Press [YELLOW/F3] to lock or unlock a channel.

Press [EXIT] to save changes.

	Dioneografia in the
	A P. A BRIDE
a	

To delete a channel press $[\blacktriangle/ V]$ on the channel list to select a channel. Press [BLUE/F4] to select channel to delete.

Press [OK] to confirm channel delete.

Press [EXIT] to save changes.

	All IV List			12	
001 NMTV-H				. 19	
002 NMTV-M		Information	1		
003 HubeiTV		Do you want to delete	this?		
		(OK):Delete (EXIT):Ca	incel		
006 CGTN F					
008 CGTN R				6148	



II.2. Program Menu (cont)

To set a favourite channel press $[\blacktriangle/\nabla]$ on the channel list to select a channel. Press [FAV] to select as favourite channel.

Press $[\blacktriangle/\nabla]$ to select favourite type and press [OK].

Press [EXIT] to save changes.

		After		El Talan
001 NMTV-H		acito Tupo		
002 NMTV-M	Dical	blo	11	
003 HubeiTV		e	- C.	
004 CCTV 4A	News	5		
	Sport	t	ewSat1	
006 CGTN F	Music	c		
			148	
008 CGTN R			6148	

To skip and rename a channel press $[\blacktriangle/ V]$ on the channel list to select a channel. Press [RECALL] to select channel to adjust.

Press [OK] to confirm channel delete.

Press [EXIT] to save changes.





11.3. EPG

Press $[\blacktriangle/\nabla]$ on EPG option and press [OK] to see the program guide.

			08 14:18
	00-23:00 Canal 9	Canal 9	
06 Oct 23:	00-23:00 Canal 9		
		Page: 1 / 0	

12. Device Setup

12.1. Device Set Up Main Menu

Press $[\blacktriangle/\nabla]$ on Device Set Up option and press [OK] to enter the menu.

Device Setup		
Keypad backlight	< On	
Keypad Tone	On	
Led Display	On	
Unit	dBuv	

Press $[\blacktriangle/ V]$ on Keypad Backlight, Keypad Tone or LED Display option. Press $[\checkmark / V]$ to select options ON or OFF



12.2. System Menu

Press $[\blacktriangle/\nabla]$ in System menu and press [OK] to enter the menu.

System	
Parental Guidance	
Set Password	
Restore Factory Default Information	

Press [OK] to enter Parental Guidance menu. The default password is 000000

Parental Guidance		
A 70	(0ff	
Age	V OII	



12.2. System Menu (cont)

Press [OK] on Set Password option to change the user password.

Set Password	
Input Old Password	
Input New Password	
Confirm Password	

Press [OK] on Restore factory Default to Factory Reset the meter.





12.2. System Menu (cont)

Press [OK] on Information option to view hardware and software versions of the device.



12.3. Picture Menu

Press [OK] on Picture menu to adjust the Aspect Ratio, Resolution, TV Format, PQ level etc.

Picture		
Aspect Ratio	4 16:9 Wide Screen	
Resolution	720p	
TV Format	PAL	
PQ Level	Default	



12.4. Option Menu

Press [OK] on access Options Menu. Use this menu to adjust Language, Subtitle, Audio Language etc.

Option		
OSD Language	< English	
Subtitle Language	English	
Audio Language	English	
Digital Audio	РСМ	
Audio Description	25	

12.5.Time Menu

Press [OK] on Time option to adjust the time or time zone. Press $[\blacktriangle/ V]$ to select options

Time Offset	< Auto	
Sleep	Off	

12.6. USB Upgrade

Insert USB device into the USB drive and move cursor to USB Upgrade option. Press [OK]. Select the file by pressing $[\blacktriangle/\nabla]$ and press [OK] to select file.



13. Technical Specifications

Specification		
Part No.	ASM03	
System		
Main Processor	600MHz based CPU	
Flash memory	64Mb	
DDR SDRAM	1024Mb	
Tuner/Front End		
Tuner Type	DVB-S/DVB-T/DVB-C	
Input Connector	F-Type Male	
Frequency Range	170~230MHz(VHF)/470~863MHz(UHF)/950~2150MHz(IF)	
Signal Level	-78~20dBm(UHF/VHF)/-65~25dBm(IF)	
Impedance	75ohm	
LNB Power & Polarisation	Vertical +13V/Horizontal +18V/Current Max. 500mA/Overload Protection	
DiSEqC Control	Version 1.0/1.1/1.3/1.3, USALS Available	
22KHz Tone	QPSK/8PSK	
Symbol Rate	2~45Msps	
Demodulation	QPSK/16QAM/64QAM/256QAM	
Bandwidth	6/7/8MHz	
Voltage Meansurement Range	0~110V	
Antenna Supply Max. Current	+5V 150mA/+12V 350mA/+24V 350mA	
Power Supply & Battery		
Input Voltage Adaptor	110~240V AC 50/60Hz	
Power Consumption	11W Max	
Power Charger Output	12V DC 3.0A	
Battery	12.6V/4000mAh	
Battery Charging Time	3~6Н	
Battery Standard Discharge Time	>5H	
A/V Data Input/Output		
A/V In/Out	CVBS Input (AHD/TVI/CVI/CVBS in optional)/CVBS Output	
Audio Input	Audio L+R Input	
Audio Output	Built-in Loudspeaker	
HDTV Input	HDMI V1.4 up to 1080p	
HDTV Output	HDMI V1.4 up to 1080p	
USB Interface	USB 2.0	
Transport Stream	MPEG2/4, H.264/H.265	
Mechanical Data		
LCD Display	5 inch TFT LCD	
Dimensions	210mm x 150mm x 52mm	
Weight	0.93kg	
Operating Temperature	0°C ~ +45°C	
Storage Temperature	-10°C ~ +70°C	
Storage Humidity	5% ~ 95% RH (non-condensing)	

We,ANTIFERENCE LIMITED herewith declare that this signal meter complies with all essential requirements and any other applicable conditions set forth on directive 1999/05/CE.

According to the WEEE (Waste Electrical and Electronic Equipment) EU Directive, do not dispose of this product as household waste or commercial waste. Waste Electrical and Electronic Equipment should be appropriately collected and recycled as required by practices established for your country. For information on recycling of this product, please contact your local authorities, your household waste disposal service or the shop where you purchased the product.

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