



DIGITAL PROGRAMMABLE TERRESTRIAL AMPLIFIERS 2024

LEM ELETTRONICA®

Satellite and TV reception equipment

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	Inputs	Total output level	UHF Input Range	On-Board Programming	NFC Programming iOS/Android	AutoProgramming Level & Quality	USB Programming Windows/Android	AutoTuning Level
DSP40pro+	2xUHF 1xVHF/UHF 1xUHF/DAB 1xFM 1xAUX	126dBμV	Lte700/UHF Selectable	Display	-	-		
DSP40+	2xUHF 1xVHF/UHF 1xUHF/DAB 1xFM	123dBμV	Lte700/UHF Selectable	Display	-	-		
DSP35evo	1xVHF 3xUHF 1xFM	120dBμV	Lte 700	Display	-	-		
DSP20evo	1xVHF 3xUHF 1xFM	100dBμV	Lte 700	Display	-	-		
DSP35SAT evo	1xVHF 2xUHF 1xSAT 1xFM	120dBμV 119dBμV(SAT)	Lte 700	Display	-	-		
DSP25SAT	1xDAB-BIII/UHF 2xUHF 1xSAT 1xFM	118dBμV 119dBμV(SAT)	Lte 700	Display	-	-	-	
DSA25	1xDAB-BIII/UHF 2xUHF 1xFM	120dBμV	Lte 700					
DSP25	1xDAB-BIII/UHF 2xUHF 1xFM	116dBμV	Lte 700	Display	-			
DSA15	1xVHF/UHF 2xUHF 1xFM	115dBμV	Lte 700	-	-		-	-
DSP15	1xVHF/UHF 2xUHF 1xFM	115dBμV	Lte 700	-		-	-	-
MSA3	1xVHF/UHF 2xUHF	105dBμV	Lte 700	-			-	-
MSP3	1xVHF/UHF 2xUHF	105dBμV	Lte 700	-		-	-	-

DSP40PRO+

DSP40+

- » Total output level max 126dB μ V⁽¹⁾
- » >50dB digital filters on adjacent channels
- » Single filter selectable mode Standard/Narrow/Wide
- » Lte700 4/5G filter technology protection
- » Dual-stage input amplifiers
- » Automatic Channel search from all inputs
- » Manual programming from display and APP



(1) DSP40pro+

Multi-input amplifiers with programmable digital filters for the equalisation and conversion of digital terrestrial TV channels. The advanced adjustment and programming features allow this product to improve the quality of the received signals. The built-in high power amplifier allows it to be used in medium and large installations.

5
WARRANTY YEARS



MODEL		DSP40PRO+	DSP40+
NUMBER OF INPUTS		1 FM; 2 UHF; 1 VHF/UHF; 1 DAB/UHF; 1 AUX	1 FM; 2 UHF; 1 VHF/UHF; 1 DAB/UHF
INPUTS FREQUENCY RANGE	MHz	FM (40... 108) AUX (40... 862) BIII/DAB 170... 240 / UHF 470... 694/862	FM (40... 108) BIII/DAB 170... 240 UHF 470... 694/862
SINGLE CHANNEL FILTERS		32	
NUMBER OF CHANNEL PER FILTER		1 (also convertible)	
INPUT LEVEL RANGES	dB μ V	FM 35...90 - BIII/DAB 40...110 - UHF 40...110	FM 35...90 - BIII/DAB 40...110 - UHF 40...110
FILTERS SELECTIVITY	dB	>50 (Adjacent channels)	
AUTOMATIC CONTROL GAIN RANGE	dB	40 dB	
VHF/UHF INPUTS AMPLIFIER	dB	0 / +15 / +30	
FM GAIN	dB	45 (Adjustable 0... -30dB)	
AUX GAIN	dB	40 (Adjustable 0... -20dB)	-
VHF GAIN	dB	60	
UHF GAIN	dB	75	
SELECTABLE FILTERS BANDWIDTH		AUTO - NARROW/STANDARD/WIDE	
OUTPUT LEVEL RANGE	dB μ V	99... 119	96... 116
FILTER LEVEL ADJUSTER	dB	-5... +5 (1dB steps)	
FILTER OFFSET ADJUSTER	KHz	-500... +500 (125KHz steps)	
UHF ADJUSTABLE SLOPE	dB	(1dB step)	
VHF ADJUSTABLE OUTPUT	dB	0... -10 (1 dB step)	
MAX TOTAL OUTPUT LEVEL	dB μ V	126 (IM3 DIN 45004B - 60 dBc)	123 (IM3 DIN 45004B - 60 dBc)
INPUTS REMOTE POWER		12V / 24V 100 mA	
RETURN LOSS IN/OUT	dB	>12	
TEST OUTPUT		1 (-30 dB)	
AMPLIFIER POWERING		100...240VAC 50/60Hz (External power supply 15VDC / 1,25A)	
MAX POWER CONSUMPTION	W	10,50 (+ remote powering)	8,5 (+ remote powering)
OPERATING TEMPERATURE	°C	-5... 50	
DIMENSIONS	mm	192 x 217 x 37	

Special Features

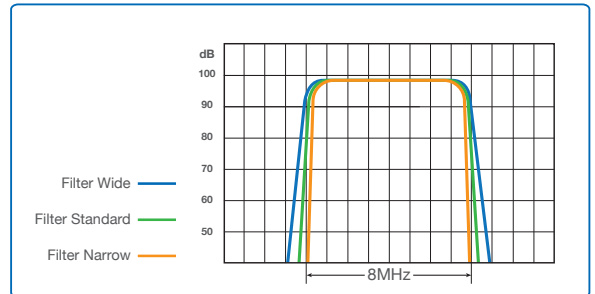
Optimised filters

For each channel, the most suitable output filter can be selected to achieve the best quality.

Standard: Filter with standard width.

Narrow: Narrow filter for adjacent channels.

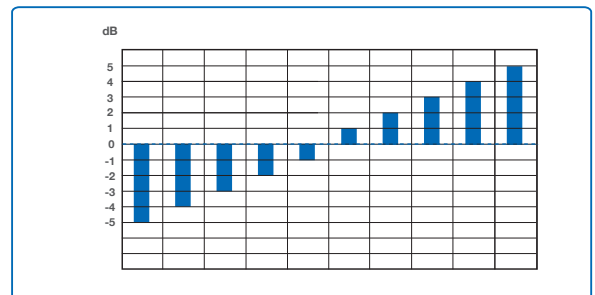
Wide: Wide filter for low quality (non-adjacent) channels.



Manual level adjustment (1)

For each individual channel, the level can be adjusted from **-5dB** to **+5dB** in 1dB steps.

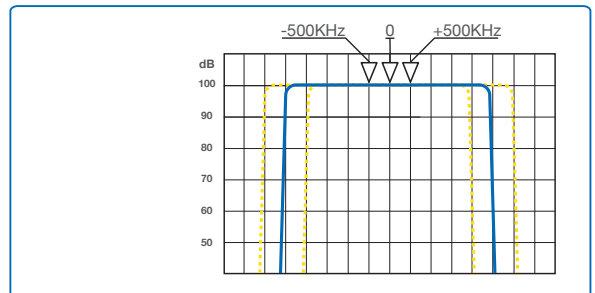
This feature can be used to create an output curve with custom equalisation or, in combination with the general **SLOPE**, to compensate for large distribution losses.



OFF-SET filter frequency (1)

The output frequency of each filter can be corrected if necessary (OFF-SET). The maximum range is **+/- 500KHz** in **125KHz** steps.

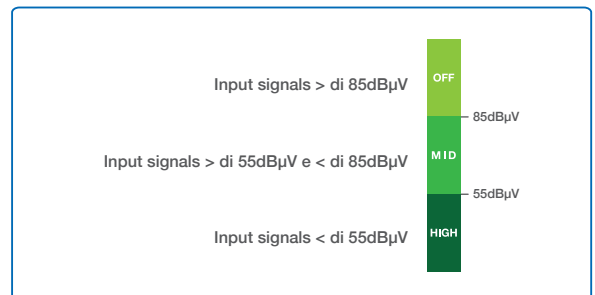
(1) Function only accessible via **LEM USB APP**



Dual-stage input amplifiers

All inputs dedicated to digital terrestrial signals are equipped with **two-stage input amplifiers** that can be configured to obtain three different C.A.G. working windows.

This feature makes it possible to receive signals at very low levels without the need for active antennas or external amplifiers.



Three Programming Options



Direct Programming

The main parameters are directly controllable via keys and a 24-character display.



Android and Windows programming

With the new LEM USB application, configuration and file storage operations are made even easier and more intuitive.



AutoTuning channels scanning

To speed up programming operations, the Auto-tuning function can be used, which automatically scans and memorises the channels received from the antennas.

DSP20^{evo}

DSP35^{evo}

- » On board and Windows/Android fully programmable
- » 32 High Selectivity channel filters with A.C.G.
- » Lte700 4/5G filter technology protection
- » DTT channel AutoTuning function
- » Single filter selectable mode Standard/Narrow/Wide
- » Dual-stage input amplifiers
- » Can be remotely power by the coaxial cable*



Programmable compact multi-input multiband amplifier to digitally filter, convert and equalize DVB-T / T2 channels. The built in high output amplifier allow the use in small and medium multi dwelling units.

5
WARRANTY YEARS



* require DC coaxial injector sold separately

MODEL		DSP20 ^{EVO}	DSP35 ^{EVO}
NUMBER OF INPUTS	5	1 FM/DAB; 1 VHF/UHF; 3 UHF	
INPUTS FREQUENCY RANGE	MHz	FM (87.5... 108) /DAB (170... 240) VHF/UHF (170... 230) - UHF (470... 694)	FM (87.5... 108) /DAB (170... 240) VHF/UHF (170... 230) - UHF (470... 694)
LTE PROTECTION		LTE700	LTE700
SINGLE CHANNEL FILTERS		32	
NUMBER OF CHANNEL PER FILTERS		1	
INPUT LEVEL RANGE	dBμV	FM 35... 90 / DAB 35... 90 - BIII 40... 110 - UHF... 40... 110	
FM/DAB INPUT ATTENUATOR	dB	(0/-12/-24) o (0... -20dB)	
VHF/UHF INPUT AMPLIFIERS		0/+15/+30	
BIII/DAB - UHF INPUTS A.C.G. RANGE	dB	40 dB	
DIGITAL FILTERS SELECTIVITY	dB	50 @1MHz	
SELECTABLE FILTER MODE		STANDARD - NARROW - WIDE	
VHF GAIN	dB	35	58
UHF GAIN	dB	45	68
OUTPUT LEVEL RANGE	dBμV	70... 90	96... 116
FILTER LEVEL ADJUSTER	dB	-5... +5 (1dB steps)	
FILTER OFFSET ADJUSTER	KHz	-500... +500(125KHz steps)	
VHF ADJUSTABLE SLOPE	dB	0... -10	
UHF ADJUSTABLE SLOPE	dB	0... -5	
MAX VHF-UHF OUTPUT LEVEL	dBμV	100 (IM3 DIN 45004B - 60 dBc)	123 (IM3 DIN 45004B - 60 dBc)
MAX OUTPUT LEVEL WITH 6 MUX	dBμV	90	115
RETURN LOSS IN/OUT	dB	>12	
TEST OUTPUT		-	(-30 dB)
USB CONNECTOR		USB 1.0 / 2.0 Type B	
REMOTE POWER SUPPLY VHF-UHF		12V / 24V 100 mA	
MAX POWER CONSUMPTION		15Vcc 0,46A - 7W (+ remote powering)	15Vcc 0,53A - 8W (+ remote powering)
OPERATING TEMPERATURE	°C	-5... 50	
DIMENSIONS	mm	193 x 148 x 36	

Special Features

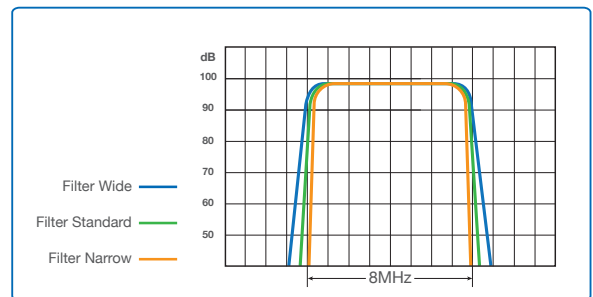
Optimised filters

For each channel, the most suitable output filter can be selected to achieve the best quality.

Standard: Filter with standard width.

Narrow: Narrow filter for adjacent channels.

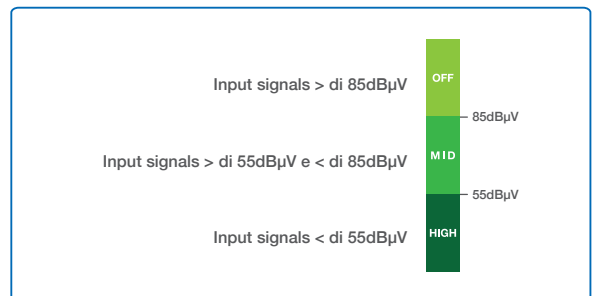
Wide: Wide filter for low quality (non-adjacent) channels.



Dual-stage input amplifiers

All inputs dedicated to digital terrestrial signals are equipped with **two-stage input amplifiers** that can be configured to obtain three different A.C.G. working windows.

This feature makes it possible to receive signals at very low levels without the need for active antennas or external amplifiers.



Three Programming Options



Direct Programming

The main parameters are directly controllable via keys and a 24-character display.



Android and Windows programming

With the new LEM USB application, configuration and file storage operations are made even easier and more intuitive.



AutoTuning channels scanning

To speed up programming operations, the Auto-tuning function can be used, which automatically scans and memorises the channels received from the antennas.

DSP35SAT^{evo}

- » On board and Windows/Android fully programmable
- » 32 High Selectivity channel filters with A.C.G.
- » Active satellite input 38 dB gain
- » Lte700 4/5G filter technology protection
- » DTT channel AutoTuning function
- » Single filter selectable mode Standard/Narrow/Wide
- » Dual-stage input amplifiers

Programmable compact multi-input multiband amplifier to digitally filter, convert and equalize DVB-T / T2 channels. The built in high output amplifier allow the use in medium or large multi dwelling units.



MODEL		DSP35SAT
TV TERRESTRIAL		
NUMBER OF INPUTS	4	1 FM/DAB; 1 VHF/UHF; 2 UHF
INPUTS FREQUENCY RANGE	MHz	FM (87.5... 108) / DAB (170... 240) VHF (170... 230) - UHF (470...694)
SINGLE CHANNEL FILTERS		32
NUMBER OF CHANNEL PER FILTER		1
INPUT TOTAL LEVEL RANGE	dBμV	FM 35... 90 / DAB 35... 90 - BIII 40... 110 - UHF... 40... 110
FM/DAB INPUT ATTENUATOR	dB	0/-12/-24
VHF/UHF INPUT AMPLIFIERS	dB	0/+15/+30
BIII/DAB/UHF INPUTS A.C.G. RANGE	dB	40 dB
DIGITAL FILTERS SELECTIVITY	dB	50 @1MHz
SELECTABLE FILTER MODE		STANDARD - NARROW - WIDE
GAIN	dB	VHF 58 - UHF 68
OUTPUT LEVEL RANGE	dBμV	96... 116
BIII/DAB ADJUSTABLE GAIN	dB	0... -10
UHF ADJUSTABLE SLOPE	dB	0... -5
MAX TOTAL VHF-UHF OUTPUT LEVEL	dBμV	123 (IM3 DIN 45004B - 60 dBc)
MAX OUTPUT LEVEL WITH 6 MUX	dBμV	115
MAX REMOTE POWER BIII/DAB-UHF		12V / 24V 100 mA
SATELLITE		
NUMBER OF INPUT	1	950... 2.150MHz
SAT INPUT TOTAL LEVEL RANGE	dBμV	60... 100
GAIN	dB	38
ADJUSTABLE GAIN	dB	0... -20
ADJUSTABLE SLOPE	dB	0... -7
MAX TOTAL OUTPUT LEVEL	dBμV	119
MAX LNB REMOTE POWER		13/18V 22KHz 600mA
COMMON		
RETURN LOSS IN/OUT	dB	>12
TEST OUTPUT		1 (-30 dB)
USB CONNECTOR		USB 1.0 / 2.0 Type B
MAXIMUM CONSUMPTION		20Vcc 0,45A-9 W (+ Remote power)
OPERATING TEMPERATURE	°C	-5... 50
DIMENSIONS	mm	193 x 148 x 36

Special Features

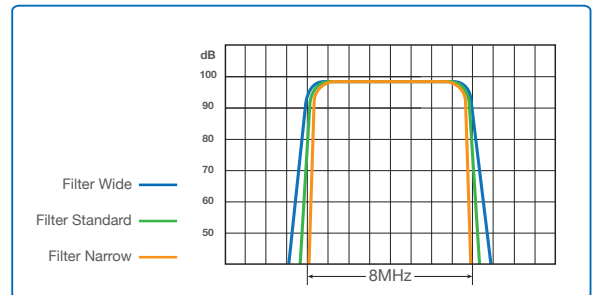
Optimised filters

For each channel, the most suitable output filter can be selected to achieve the best quality.

Standard: Filter with standard width.

Narrow: Narrow filter for adjacent channels.

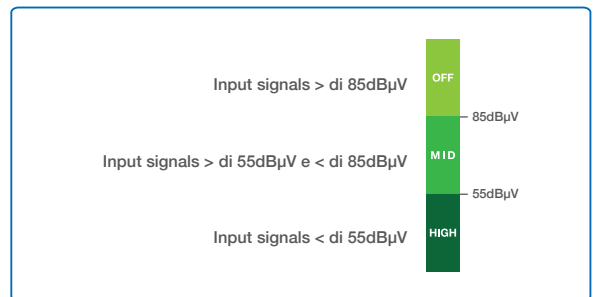
Wide: Wide filter for low quality (non-adjacent) channels.



Dual-stage input amplifiers

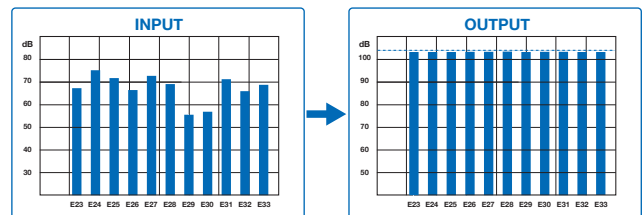
All inputs dedicated to digital terrestrial signals are equipped with **two-stage input amplifiers** that can be configured to obtain three different A.C.G. working windows.

This feature makes it possible to receive signals at very low levels without the need for active antennas or external amplifiers.



Automatic equalization and slope adjustment

Once the configuration is transmitted, each filter is automatically equalized to obtain a perfectly flat output spectrum. If required, a positive SLOPE slope can be added to compensate for the attenuation of the coaxial cables. The presence of automatic gain control C.A.G. It operates independently for each filter to guarantee an unaltered output signal over time.



Three Programming Options



Direct Programming

The main parameters are directly controllable via keys and a 24-character display.



Android smartphone programming

With the new LEM USB application, configuration and file storage operations are made even easier and more intuitive.



AutoTuning channels scanning

To speed up programming operations, the Auto-tuning function can be used, which automatically scans and memorises the channels received from the antennas.

DSP25SAT

- » Manual configuration with LCD display
- » Lte700 4G / 5G filter protection
- » 32 High Selectivity channel filters with A.C.G.
- » Active adjustable 38 dB gain satellite input
- » Auto-Tuning function
- » Wall or DIN bar fixing



Multi-input amplification unit with programmable digital filters for equalization and frequency conversion of DVB-T/T2 MUX.

Amplified input for the satellite band 950÷2.200MHz.

Integrated high efficiency power supply for low consumption and high reliability.



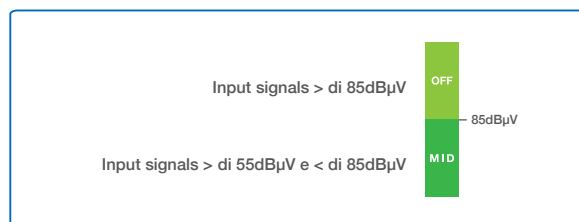
MODEL		DSP25SAT
TV TERRESTRIAL		
NUMBER OF INPUTS	4	1 FM; 1 DAB-BIII/UHF; 2 UHF
INPUTS FREQUENCY RANGE	MHz	FM (87.5... 108) / DAB (170... 240) VHF (170... 230) - UHF (470...694)
SINGLE CHANNEL FILTERS		32
NUMBER OF CHANNEL PER FILTER		1
INPUT TOTAL LEVEL RANGE	dBμV	FM 35... 90 - DAB 35... 90 - BIII 45... 110 - UHF... 45... 100
VHF/UHF INPUT AMPLIFIERS	dB	0/+15
BIII/DAB/UHF INPUTS A.C.G. RANGE	dB	40 dB
DIGITAL FILTERS SELECTIVITY	dB	50 @1MHz
SELECTABLE FILTER MODE		STANDARD - NARROW - AUTO
GAIN	dB	VHF 58 - UHF 68
OUTPUT LEVEL RANGE	dBμV	93... 113
BIII/DAB ADJUSTABLE GAIN	dB	0... -10
UHF ADJUSTABLE SLOPE	dB	0... -5
MAX TOTAL VHF-UHF OUTPUT LEVEL	dBμV	120 (IM3 DIN 45004B - 60 dBc)
MAX OUTPUT LEVEL WITH 6 MUX	dBμV	113
MAX REMOTE POWER BIII/DAB-UHF		12V / 24V 100 mA
SATELLITE		
NUMBER OF INPUT	1	950... 2.150MHz
SAT INPUT TOTAL LEVEL RANGE	dBμV	60... 100
GAIN	dB	38
ADJUSTABLE GAIN	dB	0... -20
ADJUSTABLE SLOPE	dB	0... -7
MAX TOTAL OUTPUT LEVEL	dBμV	118
MAX LNB REMOTE POWER		13/18V 22KHz 300mA
COMMON		
RETURN LOSS IN/OUT	dB	>12
TEST OUTPUT		1 (-30 dB)
USB CONNECTOR		USB 1.0 / 2.0 Type B
MAXIMUM CONSUMPTION		100 - 240VAC 50/60Hz 9.5W (+ Remote power)
OPERATING TEMPERATURE	°C	-5... 50
DIMENSIONS	mm	227 x 107 x 48

Special Features

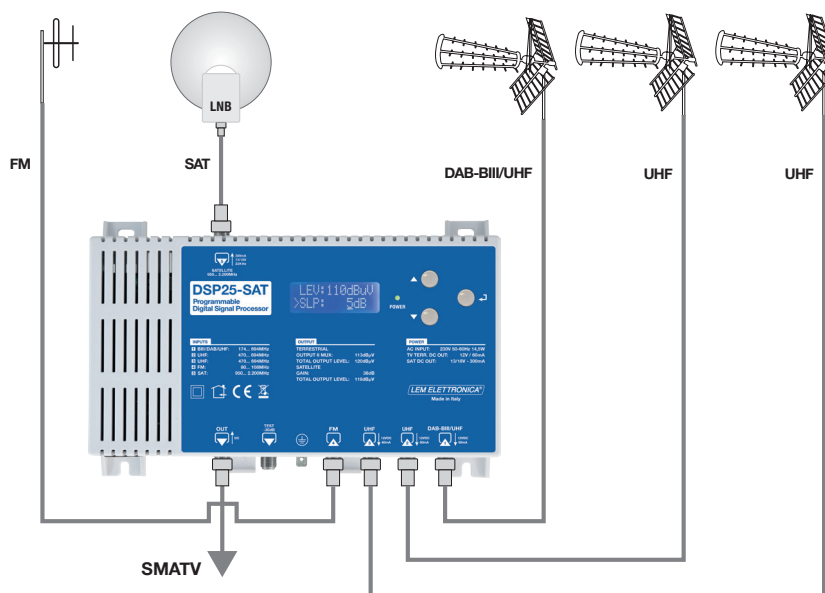
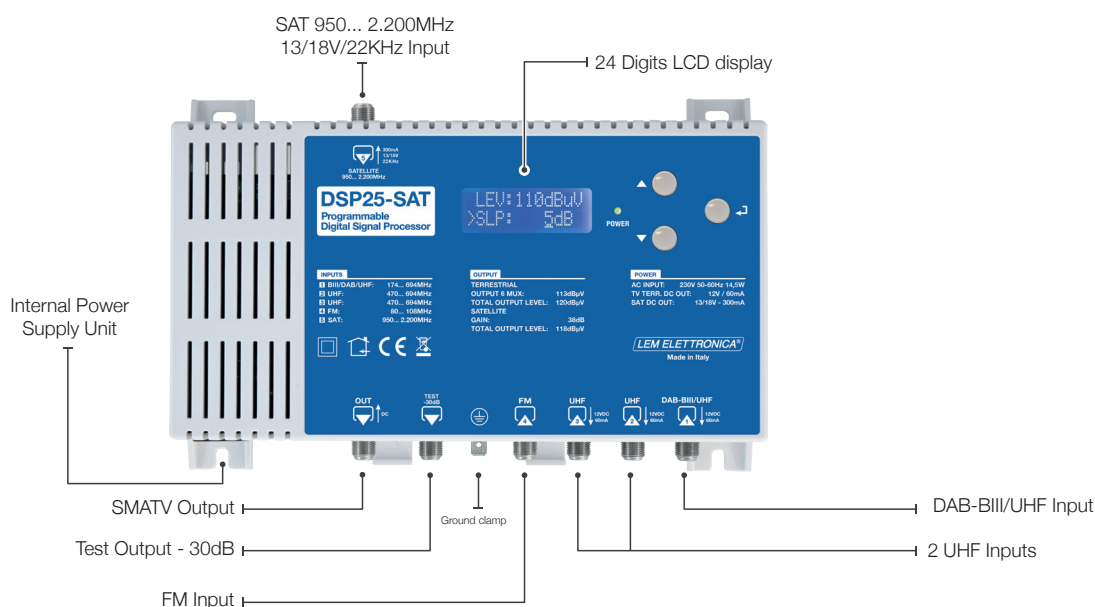
Single-stage input amplifiers

All inputs dedicated to digital terrestrial signals are equipped with **single-stage input amplifiers** that can be configured to obtain two different A.C.G. working windows.

This feature makes it possible to receive signals at very low levels without the need for active antennas or external amplifiers.

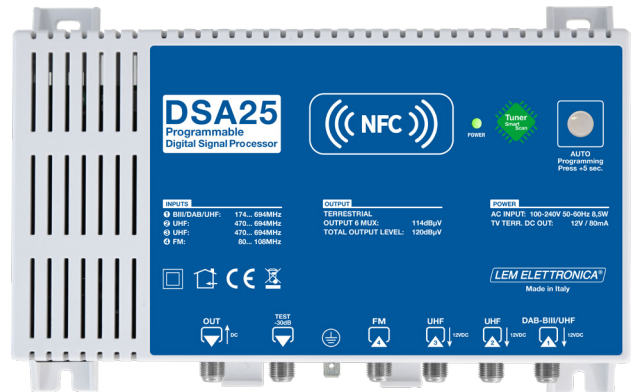


Connections Schematic



DSA25

- » Built-in DVB-T/T2 tuner for DTT Auto-Programming
- » 32 programmable digital filters with A.C.G.
- » NFC manual programming with smartphone
- » Passcode protection
- » 4G/5G input protection
- » Total output level 120dBμV
- » DIN rail and wall mounting



Multi-input amplification unit with programmable digital filters for equalization and frequency conversion of DVB-T/T2 MUX.

Advanced digital filtering with the possibility of choosing whether to program it with the SmartScan function (integrated tuner) automatically or via an application available for Apple and Android smartphones manually.

Integrated high efficiency power supply for low consumption and high reliability.

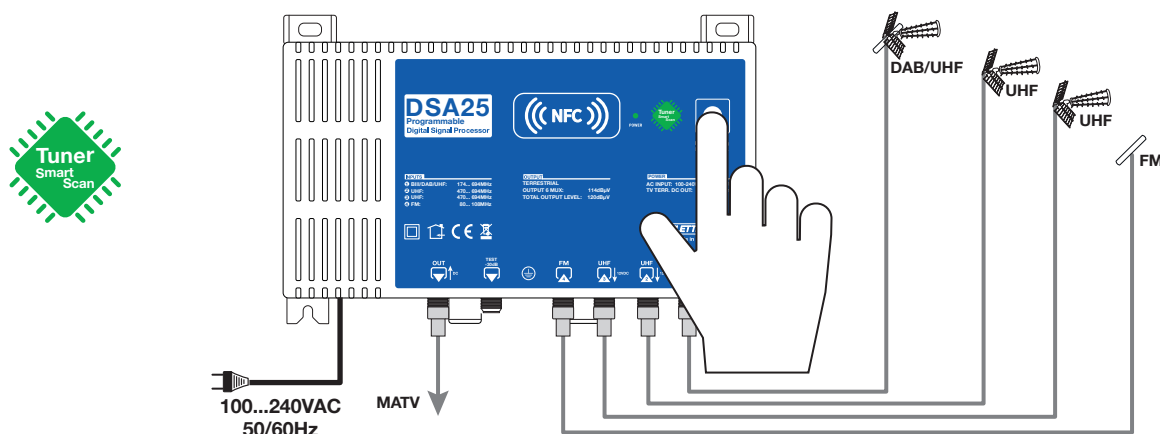


MODEL		DSA25
NUMBER OF INPUTS	4	1xFM / 1xBIII/DAB/UHF / 2xUHF
INPUTS FREQUENCY RANGE	MHz	FM (87,5... 108) BIII (170... 230) / DAB (170... 240) UHF (470... 694)
LTE PROTECTION		LTE 700 4/5G
SINGLE CHANNEL FILTERS		32
MAXIMUM INPUT LEVEL	dBμV	FM 35... 90 - BIII/DAB 50... 110 - UHF ...50... 100
FM INPUT PREAMPLIFIER	dB	+16/0 (ON/OFF)
DAB/BIII/UHF INPUT PREAMPLIFIER	dB	+16/0 (ON/OFF)
UHF INPUT PREAMPLIFIER	dB	+16/0 (ON/OFF)
AUTOMATIC GAIN CONTROL RANGE	dB	40 dB
DIGITAL FILTERS SELECTIVITY	dB	35 @1MHz
VHF GAIN	dB	60
UHF GAIN	dB	60
OUTPUT LEVEL (ADJUSTABLE)	dBμV	93... 114
BIII/DAB LEVEL ADJUSTMENT	dB	0... -10
UHF SLOPE ADJUSTMENT	dB	0... -5
TOTAL OUTPUT LEVEL DIN 45004B	dBμV	120
TOTAL OUTPUT LEVEL 6 MUX	dBμV	114
RETURN LOSS IN/OUT	dB	>12
TEST OUTPUT		1(-30 dB)
REMOTE POWER SUPPLY		12V / 80mA
INPUT VOLTAGE	V	100-240VAC 50/60Hz
MAXIMUM CONSUMPTION	W	8,5
OPERATING TEMPERATURE	°C	-5... 50
DIMENSIONS	mm	227 x 107 x 48

Programming & Connection diagram

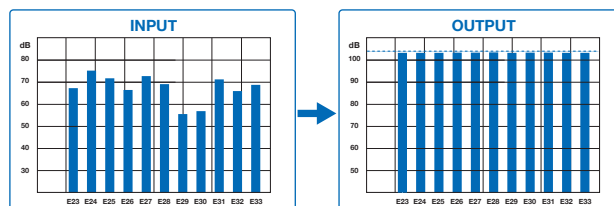
SmartScan automatic programming

After connecting the antennas, simply press a button to start scanning the signals present in each input. Each received MUX is analyzed using the integrated DVB-T/T2 Tuner and is stored only if it has adequate quality requirements. If the same MUX is detected by different antennas, the one with the best quality parameters is chosen.



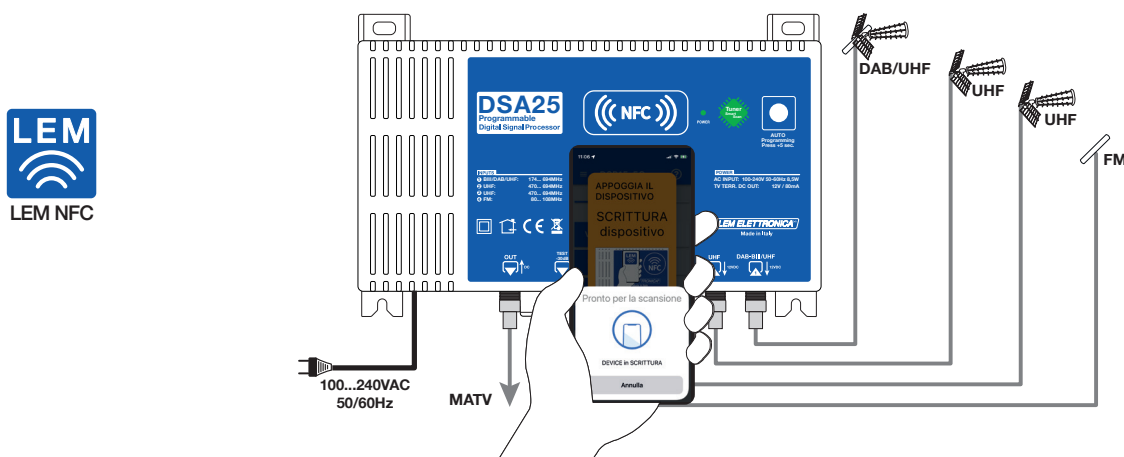
Automatic filter equalization

After completing the search and storage of the received signals, each filter is optimized in amplitude and equalized to guarantee a perfectly linear and balanced output spectrum, reaching the maximum possible output level.



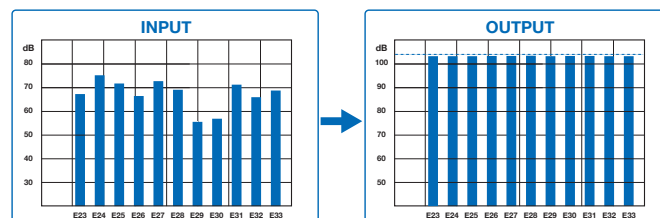
Manual programming

With the LEM NFC smartphone application, it is possible to manually program all the parameters of the control unit or, more simply, modify them after performing the automatic search. The connection to the DSA25 is wireless by the NFC technology, eliminating the need to connect cables or use additional interfaces. It is possible to read the configuration even when the control panel is turned off and save it for future reuse.



Automatic equalization and slope adjustment

Once the configuration is transmitted, each filter is automatically equalized to obtain a perfectly flat output spectrum. If required, a positive SLOPE slope can be added to compensate for the attenuation of the coaxial cables. The presence of automatic gain control C.A.G. It operates independently for each filter to guarantee an unaltered output signal over time.



DSP25

- » Lte700 4/5G filter technology protection
- » 32 High Selectivity channel filters with A.C.G.
- » Manual configuration with LCD display
- » Auto-Tuning function
- » A.C.G in each filter
- » Wall or DIN bar fixing



Multi-input amplification unit with programmable digital filters for equalization and frequency conversion of DVB-T/T2 MUX.

Integrated high efficiency power supply for low consumption and high reliability.

5
WARRANTY YEARS



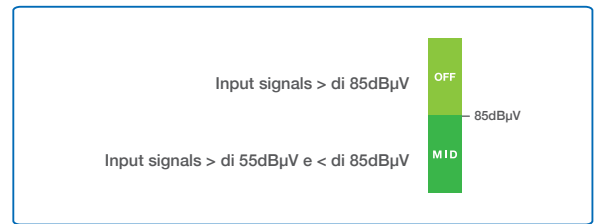
MODEL		DSP25
NUMBER OF INPUTS	4	1 FM; 1 DAB-BIII/UHF; 2 UHF
INPUTS FREQUENCY RANGE	MHz	FM (87.5... 108) / DAB (170... 240) VHF (170... 230) - UHF (470... 694)
SINGLE CHANNEL FILTERS		32
NUMBER OF CHANNEL PER FILTER		1
INPUT TOTAL LEVEL RANGE	dBμV	FM 35... 90 - DAB 35... 90 - BIII 45... 110 - UHF... 45... 100
VHF/UHF INPUT AMPLIFIERS	dB	0/+15
BIII/DAB/UHF INPUTS A.C.G. RANGE	dB	40 dB
DIGITAL FILTERS SELECTIVITY	dB	50 @1MHz
SELECTABLE FILTER MODE		STANDARD - NARROW - AUTO
GAIN	dB	VHF 58 - UHF 68
OUTPUT LEVEL RANGE	dBμV	85... 105
BIII/DAB ADJUSTABLE GAIN	dB	0... -10
UHF ADJUSTABLE SLOPE	dB	0... -5
MAX TOTAL VHF-UHF OUTPUT LEVEL	dBμV	116 (IM3 DIN 45004B - 60 dBc)
MAX OUTPUT LEVEL WITH 6 MUX	dBμV	105
MAX REMOTE POWER BIII/DAB-UHF		12V 100 mA
COMMON		
RETURN LOSS IN/OUT	dB	>12
TEST OUTPUT		1 (-30 dB)
USB CONNECTOR		USB 1.0 / 2.0 Type B
MAXIMUM CONSUMPTION		100 - 240VAC 50/60Hz 8.5W (+ Remote power)
OPERATING TEMPERATURE	°C	-5... 50
DIMENSIONS	mm	227 x 107 x 48

Special Features

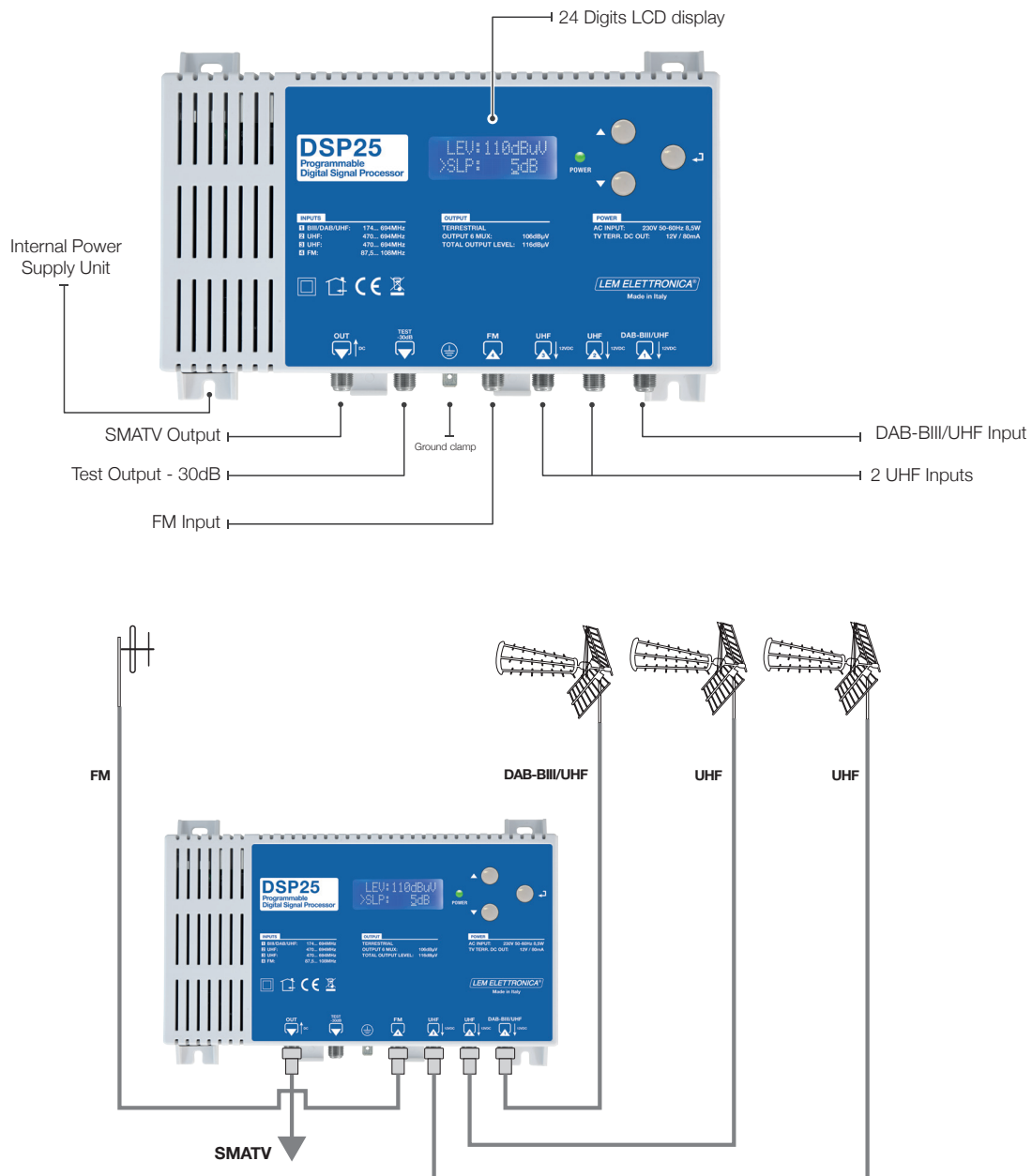
Single-stage input amplifiers

All inputs dedicated to digital terrestrial signals are equipped with **single-stage input amplifiers** that can be configured to obtain two different A.C.G. working windows.

This feature makes it possible to receive signals at very low levels without the need for active antennas or external amplifiers.

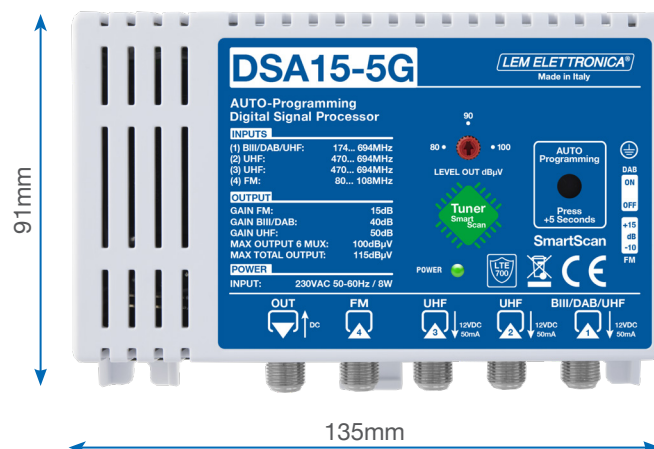


Connections Schematic



DSA15-5G

- » Built-in DVB-T/T2 tuner for DTT Auto-Programming
- » Very compact size
- » High Selectivity channel filters with A.C.G.
- » Lte700 4/5G filter technology protection
- » Auto-sensing antenna input powering
- » ON / OFF Switch DAB enabler
- » Integrated high-efficiency power supply
- » DIN rail and wall mounting



Active device with built-in tuner to detect DVB-T/T2 channels for UHF+VHF inputs, the unit performs an automatic programming of the filters, as well as the appropriate level equalization. The manual adjuster allows the installer to adapt the output level to the characteristics of the distribution network.

The amplifier integrates a high-efficiency low-power consumption switch-mode power supply. Can be also remotely powered over the output coaxial cable.

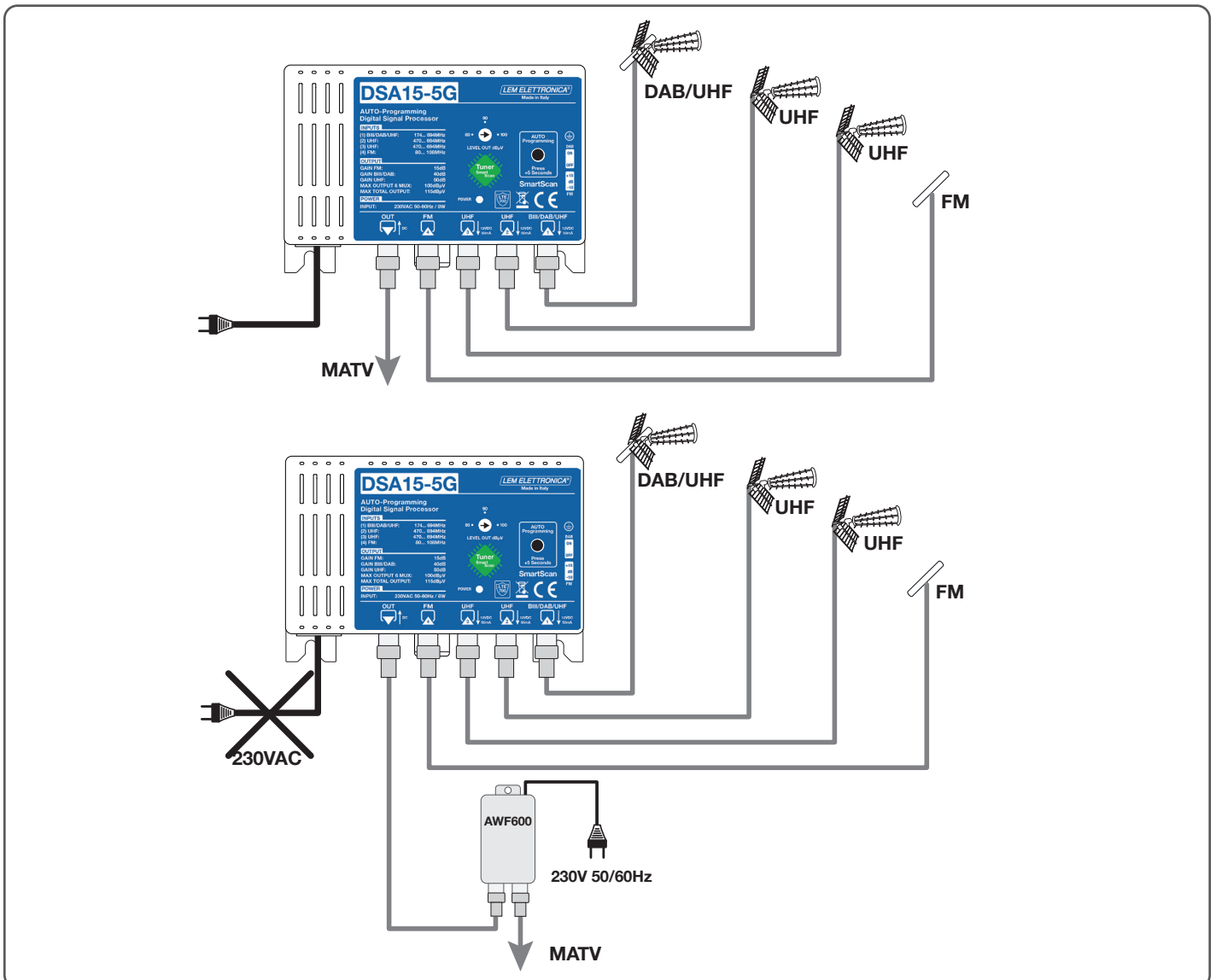
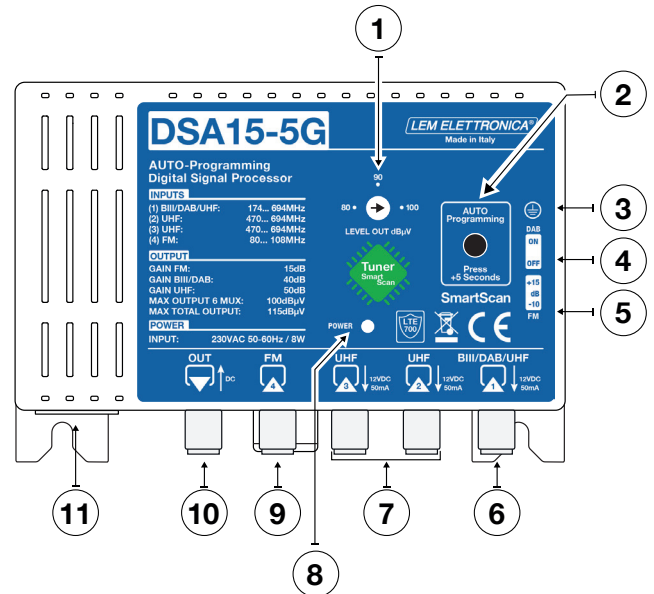
WARRANTY **5** YEARS



MODEL		DSA15
NUMBER OF INPUTS		1xFM / 1xBIII/DAB/UHF / 2xUHF
INPUTS FREQUENCY RANGE	MHz	FM (88... 108) BIII (170... 230) / DAB (170... 240) UHF (470... 694)
LTE PROTECTION		LTE 700
SINGLE CHANNEL FILTER		Up to 32
NUMBER OF CHANNEL PER FILTERS		1
MAXIMUM INPUT LEVEL	dBμV	FM 90 - BIII/DAB 100 - UHF 100
VHF-UHF A.C.G. RANGE	dB	40 dB
DIGITAL FILTERS SELECTIVITY	dB	50 @1MHz
FM GAIN	dB	-10/+15 (selectable)
BIII/DAB GAIN	dB	40
UHF GAIN	dB	50
OUTPUT LEVEL RANGE (x MUX)	dBμV	80... 100 (adjustable)
RETURN LOSS IN/OUT	dB	>10
REMOTE POWER SUPPLY		12V / 50mA
INPUT VOLTAGE	V	100 - 240VAC 50/60Hz
MAXIMUM CONSUMPTION	W	8 (+ remote power)
OPERATING TEMPERATURE	°C	-15... 40
DIMENSIONS	mm	135 x 91 x 45

Connections Schematic

- 1 Output level adjuster 80... 100dB μ V
- 2 AUTO Programmig key (to run SmartScan)
- 3 Ground clamp
- 4 DAB ON/OFF selector switch
- 5 FM -10dB / +15dB gain level selector switch
- 6 Antenna input (1) BIII / DAB / UHF(E21... E48)
- 7 Antenna inputs (2)/(3) UHF (E21... E48)
- 8 Multi-function LED
- 9 Antenna input (4) FM (88... 108MHz)
- 10 MATV output /remote power 12...15VDC
- 11 230VAC 50/60Hz Mains input

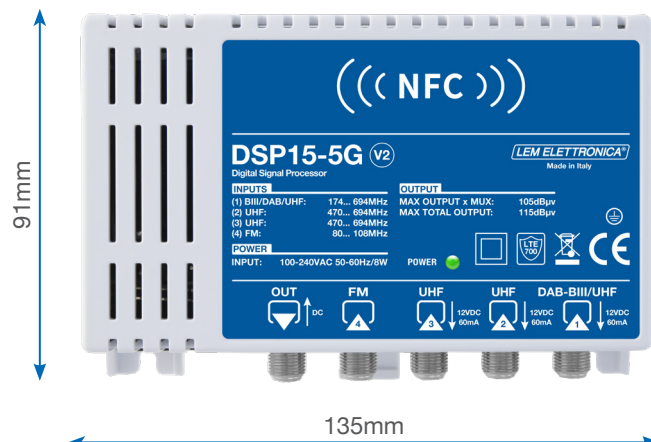


DSP15-5G V2

- » Contactless NFC smart phone programmable
- » App available for iOS and Android
- » Very compact size
- » 32 High Selectivity channel filters with ACG
- » Lte700 4/5G filter technology protection
- » Integrated high-efficiency power supply
- » DIN rail and wall mounting

The all parameters (channel filters, output level, slope, etc...) are managed by a smartphone App (Android or iOS) in a friendly and intuitive environment. The configurations can be saved and recalled in the smartphone memory - even without being connected to the amplifier.

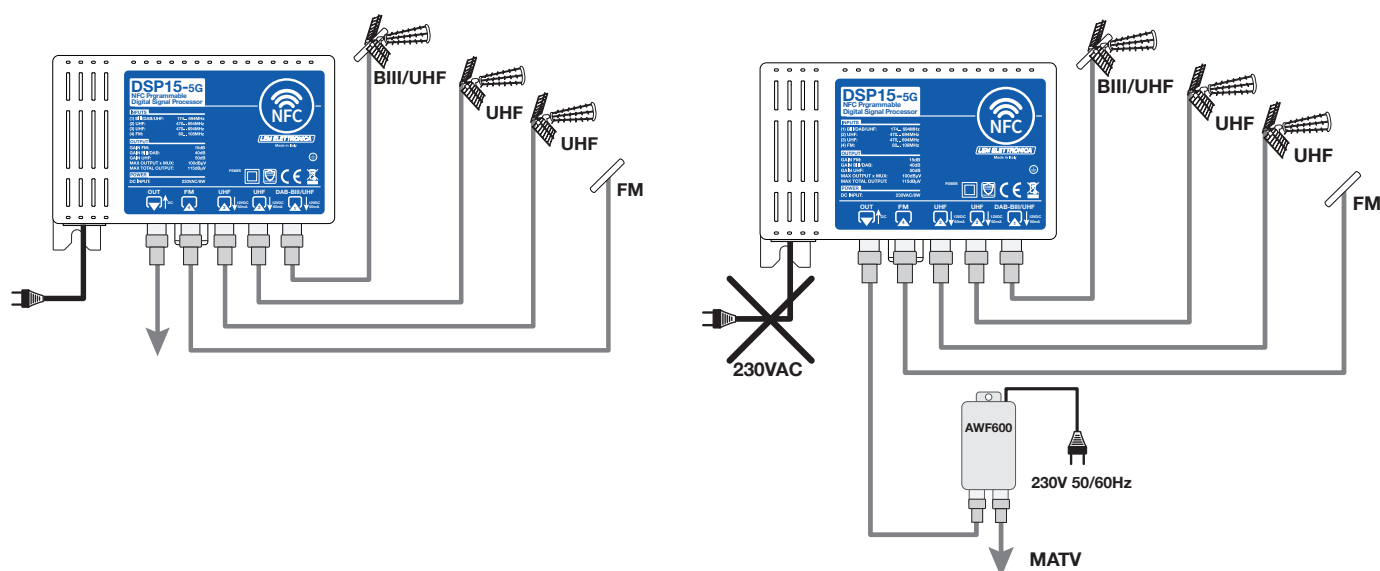
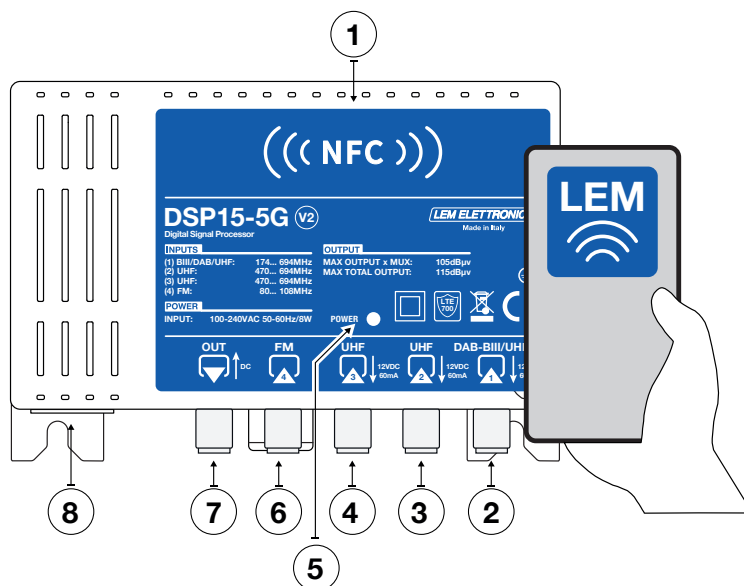
The amplifier integrates a high-efficiency low-power consumption switch-mode power supply. Can be also remotely powered over the output coaxial cable.



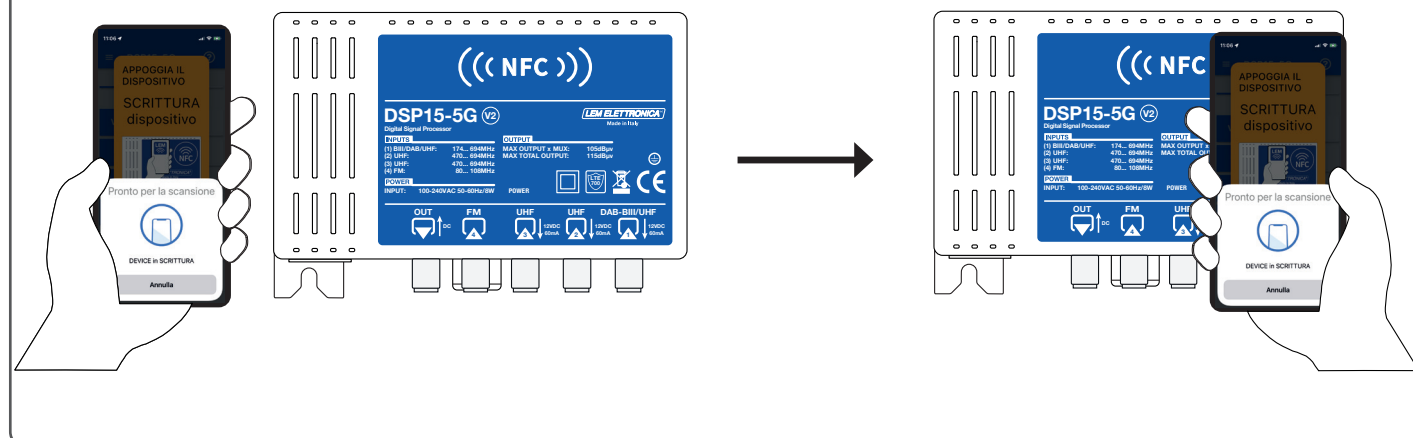
MODEL		DSP15
NUMBER OF INPUTS		1x FM / 1xDAB/BIII/UHF / 2x UHF
INPUTS FREQUENCY RANGE	MHz	FM (80... 108) BIII (170... 230) / DAB (170... 240) UHF (470... 694)
LTE PROTECTION		LTE 700
SINGLE CHANNEL FILTERS		32
NUMBER OF CHANNEL PER FILTER		1
COMMUNICATION STANDARD		NFC (Near Field Communication)
INPUT LEVEL RANGE	dBμV	FM 35... 90 - BIII/DAB 45... 100 - UHF 45... 100
BIII/DAB/UHF INPUT PRE-AMPLIFIER	dB	0/+15
AUTOMATIC GAIN CONTROL RANGE	dB	40
DIGITAL FILTERS SELECTIVITY	dB	50 @1MHz
FM GAIN	dB	-10/+15
BIII/DAB GAIN	dB	40... 50
UHF GAIN	dB	60
TOTAL OUTPUT LEVEL RANGE	dBμV	85... 105
BIII/DAB LEVEL ADJUSTMENT	dB	0... -10
UHF SLOPE ADJUSTMENT	dB	0... +5
MAX TOTAL OUTPUT LEVEL	dBμV	115
OUTPUT LEVEL WITH 6 MUX	dBμV	105
RETURN LOSS IN/OUT	dB	>10
AERIAL INPUTS REMOTE POWERING		12V/ 60mA
INPUT VOLTAGE	V	100...240VAC 50/60Hz
MAXIMUM CONSUMPTION	W	8 (+ remote power)
OPERATING TEMPERATURE	°C	-15... 40
DIMENSIONS	mm	135 x 91 x 44

Connections Schematic

- 1 NFC antenna
- 2 BIII / DAB / UHF(E21... E48) aerial input
- 3 UHF (E21... E48) aerial input
- 4 UHF (E21... E48) aerial input
- 5 Multi-function LED
- 6 Antenna input (4) FM (88... 108MHz)
- 7 MATV output / remote power 12...15VDC
- 8 230VAC 50/60Hz Mains input



NFC Programming with smartphone



MSA3-5G

- » Built-in DVB-T/T2 tuner for DTT Auto-Programming
- » High Selectivity channel filters with A.C.G.
- » Lte700 4/5G filter technology protection
- » Autosensing antenna input powering
- » ON / OFF Switch DAB enabler
- » Die casting zamak chassis
- » Mast rain proof protective housing



Masthead amplifier for the amplification of terrestrial signals coming from several antennas.

Active device with built-in tuner to detect DVB-T/T2 channels for UHF+VHF inputs, the unit performs an automatic programming of the filters, as well as the appropriate level equalization. The manual adjuster allows the installer to adapt the output level to the characteristics of the distribution network.

The amplifier is powered through the output coaxial cable with 12 Vdc.

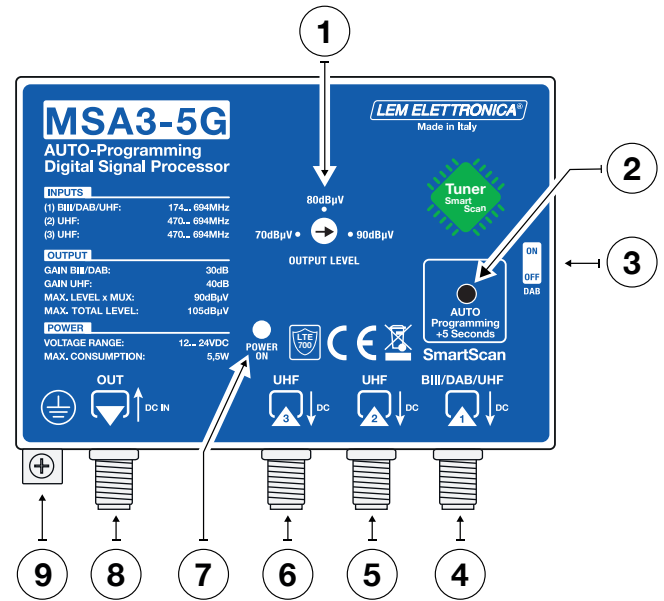
5
WARRANTY YEARS



MODEL		MSA3
NUMBER OF INPUTS		1xBIII/DAB/UHF / 2xUHF
INPUTS FREQUENCY RANGE	MHz	BIII (170... 230) / DAB (170... 240) UHF (470... 694)
LTE PROTECTION		LTE 700
SINGLE CHANNEL FILTERS		Up to 32
NUMBER OF CHANNEL PER FILTERS		1
MAXIMUM INPUT LEVEL	dBμV	BIII/DAB 100 - UHF 105
VHF-UHF A.C.G. RANGE	dB	40 dB
DIGITAL FILTERS SELECTIVITY	dB	50 @1MHz
BIII/DAB GAIN	dB	35
UHF GAIN	dB	45
OUTPUT LEVEL RANGE (x MUX)	dBμV	70... 90 (adjustable)
RETURN LOSS IN/OUT	dB	>10
INPUTS REMOTE POWER SUPPLY		12V / 50mA
OPERATING VOLTAGE	V	12
MAXIMUM CONSUMPTION	W	5,5
OPERATING TEMPERATURE	°C	-15... 40
MAXIMUM MAST SIZE	mm	Ø 60
DIMENSIONS	mm	129 x 128,5 x 51,5

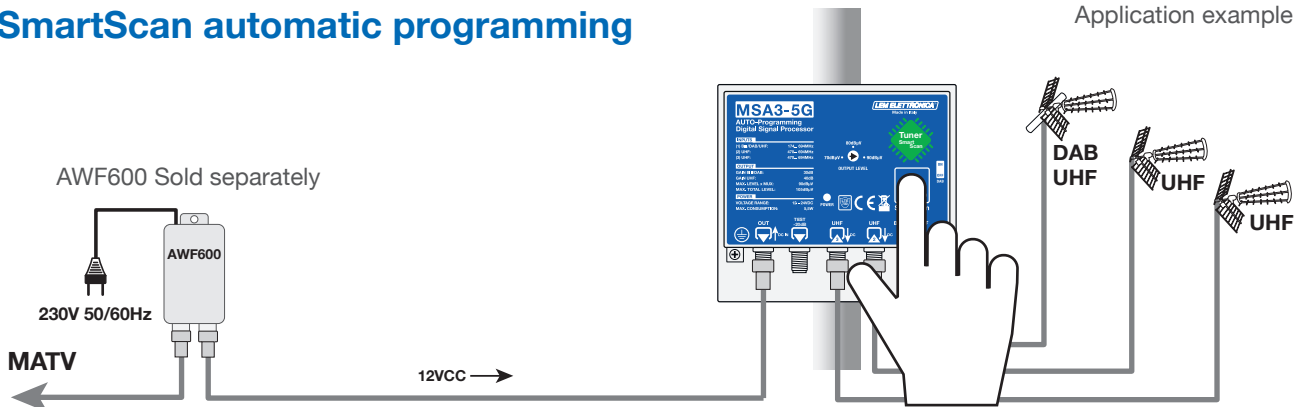
Connections Schematic

- 1 Output level adjuster 70... 90dBμV
- 2 AUTO Programmig key (to run SmartScan)
- 3 DAB ON/OFF selector switch
- 4 Antenna input (1) BIII / DAB / UHF(E21... E48)
- 5 Antenna input (2) UHF(E21... E48)
- 6 Antenna input (3) UHF(E21... E48)
- 7 Multi-function LED
- 8 MATV output /remote power 12...15VDC
- 9 Ground clamp



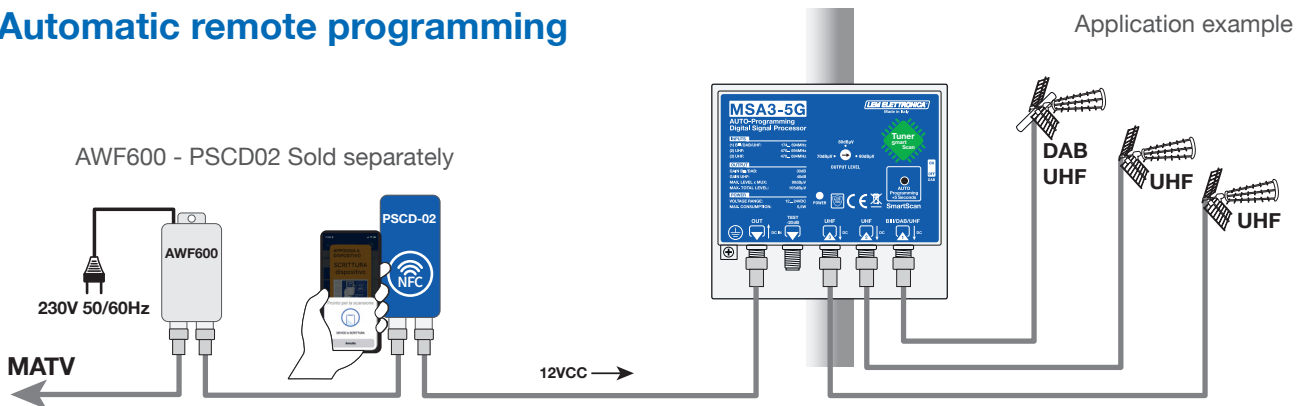
SmartScan automatic programming

Application example



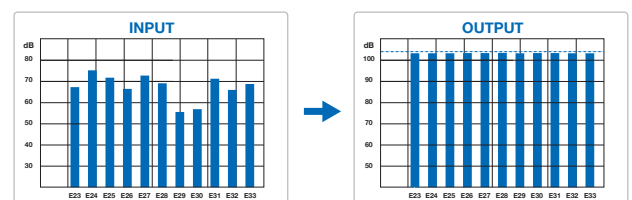
Automatic remote programming

Application example



Automatic filter equalization

After completing the search and storage of the received signals, each filter is optimized in amplitude and equalized to guarantee a perfectly linear and balanced output spectrum, reaching the maximum possible output level.



MSP3-5G

- » Contactless NFC smart phone programmable
- » App available for iOS and Android
- » 32 High Selectivity channel filters with ACG
- » Lte700 4G/5G SAW filter technology protection
- » Die casting zamak chassis
- » Mast rain proof protective housing

Masthead amplifier for the amplification of terrestrial signals coming from several antennas.

The all parameters (channel filters, output level, slope, etc...) are managed by a smartphone App (Android or iOS) in a friendly and intuitive environment. The configurations can be saved and recalled in the smartphone memory - even without being connected to the amplifier.

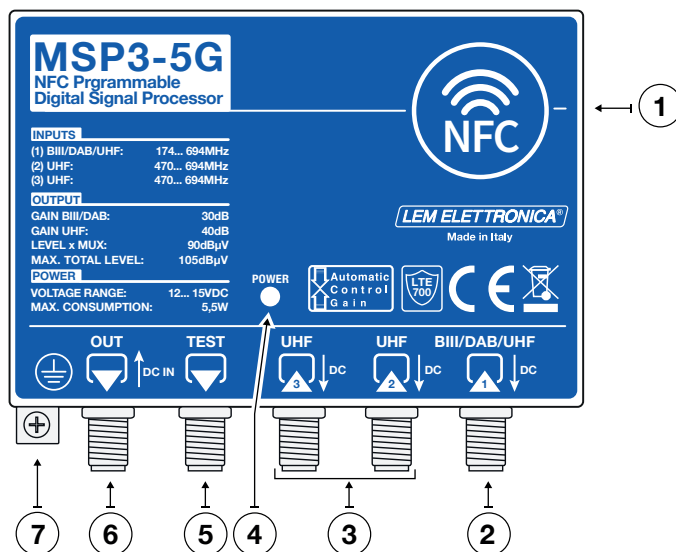
The amplifier is powered through the output coaxial cable with 12 Vdc.



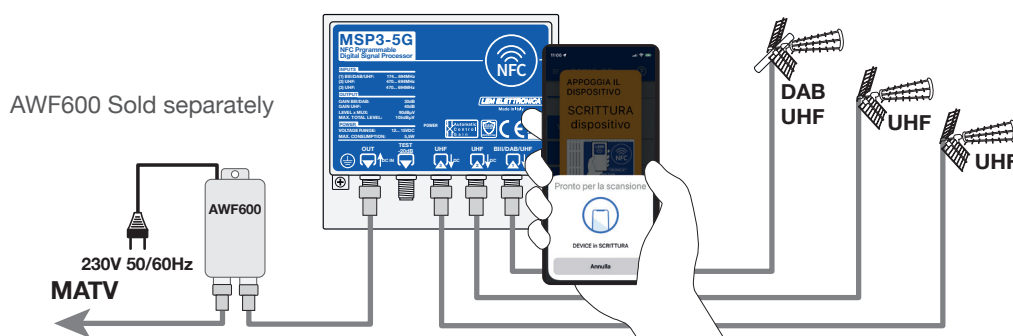
MODEL		MSP3
NUMBER OF INPUTS		1xBIII/DAB/UHF / 2xUHF
INPUTS FREQUENCY RANGE	MHz	BIII (170... 230) / DAB (170... 240) UHF (470... 694)
LTE PROTECTION		LTE 700
SINGLE CHANNEL FILTERS		Up to 32
NUMBER OF CHANNEL PER FILTERS		1
MAXIMUM INPUT LEVEL	dBμV	BIII/DAB 100 - UHF 100
VHF-UHF A.C.G. RANGE	dB	40 dB
DIGITAL FILTERS SELECTIVITY	dB	50 @1MHz
BIII/DAB GAIN	dB	35
UHF GAIN	dB	45
OUTPUT LEVEL RANGE (x MUX)	dBμV	70... 90
RETURN LOSS IN/OUT	dB	>10
INPUTS REMOTE POWER SUPPLY		12V / 50mA
OPERATING VOLTAGE	V	12V
MAXIMUM CONSUMPTION	W	5,5
OPERATING TEMPERATURE	°C	-15... 40
MAXIMUM MAST SIZE	mm	Ø 60
DIMENSIONS	mm	129 x 128,5 x 51,5

Connections Schematic

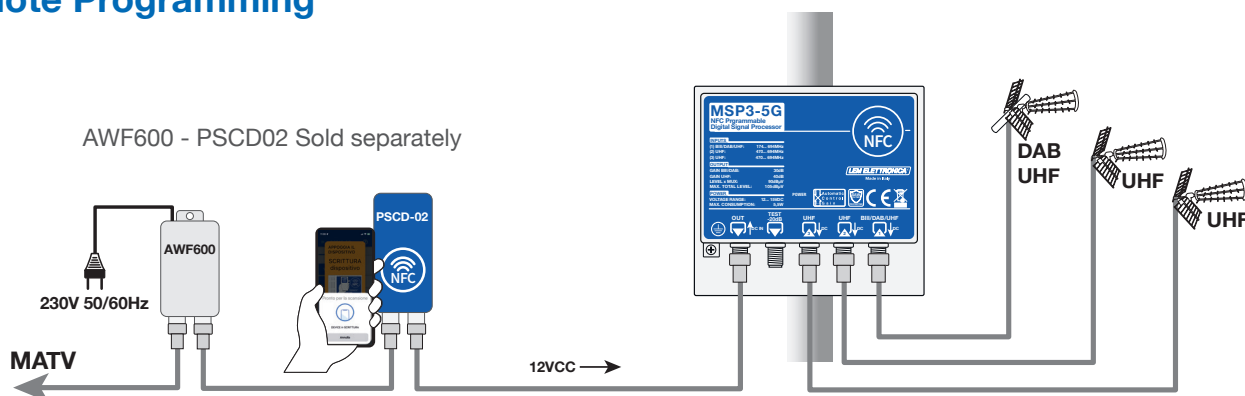
- 1 NFC antenna
- 2 Input (1) BIII / DAB / UHF(E21... E48)
- 3 Inputs (2)/(3) UHF (E21... E48)
- 4 Multi function LED
- 5 Test Output
- 6 MATV Output / Remote power supply
- 7 Ground clamp



Manual Programming

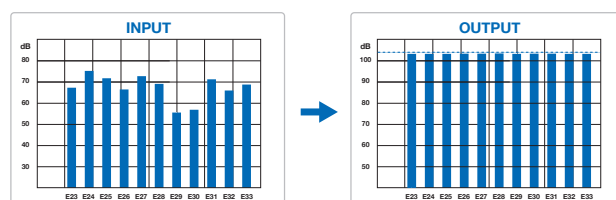


Remote Programming



Automatic equalization and slope adjustment

Once the configuration has been transmitted, each filter is automatically equalized to obtain a perfectly flat output spectrum. If the characteristics of the system require it, a positive SLOPE can be added to compensate the attenuation of the coaxial cables. The presence of automatic gain control C.A.G, which operates independently and in real time for each filter, ensures output signals with levels that are always constant over time.



PSCD-02

- >> Contactless NFC smart phone programmable
- >> App available for iOS and Android

Remote programming device via coaxial cable.

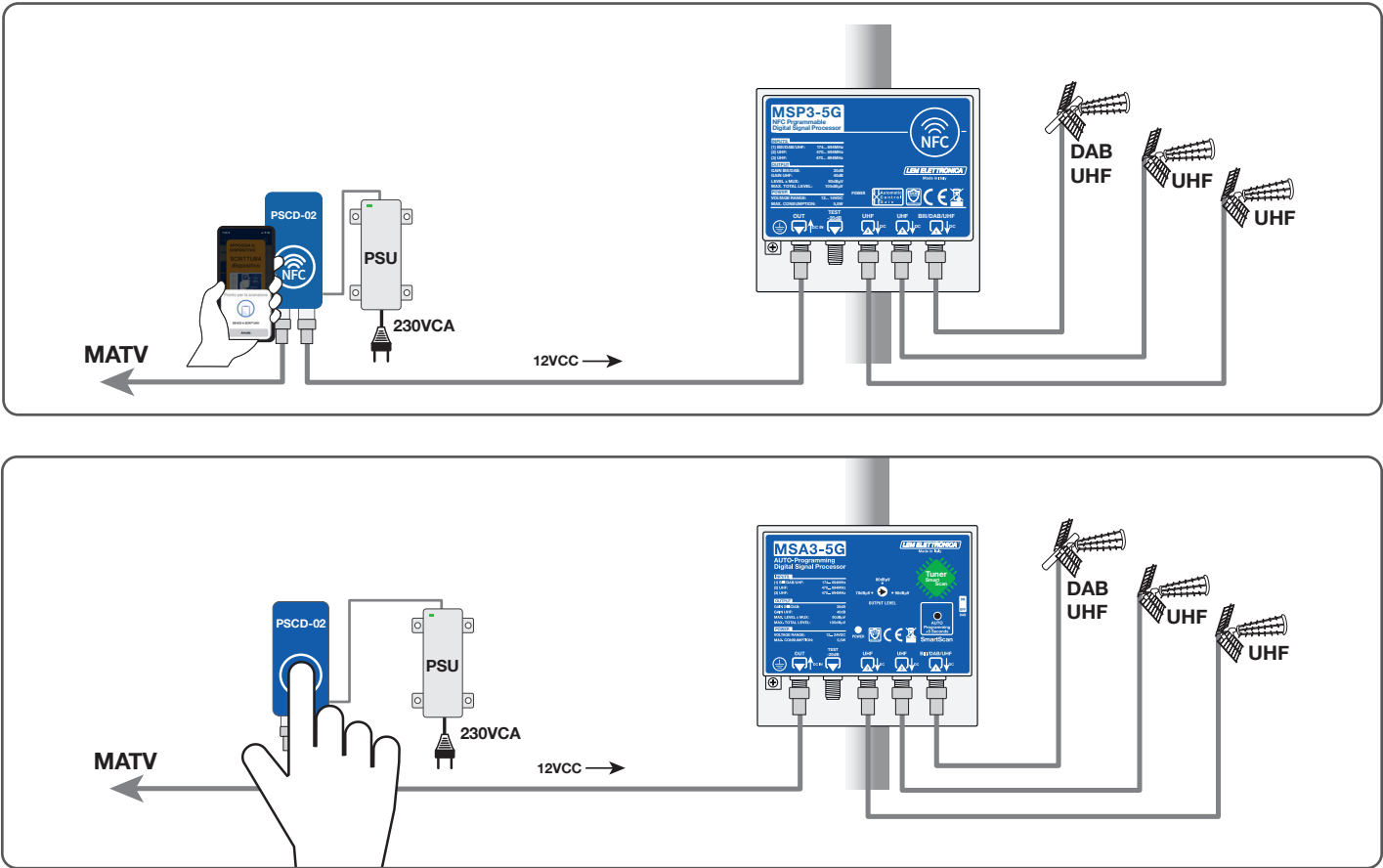
The **PSCD-02 programmer** allows remote programming of the MSP3-5G and MSA3-5G pole-mounted control panels.

It is also possible to start **SmartScan automatic programming** for the MSA3-5G panel and is supplied with its own power supply to power both the programmer and the panel connected via coaxial cable.



MODEL		PSCD-02
INPUT/OUTPUT		40... 2.200MHz
TRUNK LOSS	dB	1
SHORT-CIRCUIT PROTECTION		SI
OUTPUT VOLTAGE	VCC	12
MAX OUTPUT CURRENT	A	1
INPUT CURRENT	VCC	12.. 15
STANDARD COMMUNICATION		NFC
DIMENSIONS	mm	113,5 x 48,5 x 28,5

Connections Schematic



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