



EKSELANS BY ITS



DIGITAL PROGRAMMABLE AMPLIFIERS

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EKSEL

DIGITAL PROGRAMMABLE AMPLIFIERS

EK presents the new range of EKSEL programmable exchanges developed with the most modern digital filtering technology.

EKSEL models incorporate 32 ultra-selective digital filters that allow the selection, filtering and amplification of each digital multiplex, guaranteeing the ideal output level for each type of installation - whether individual or collective - and a very high quality output.

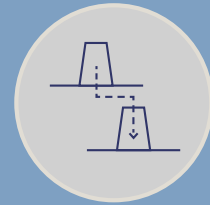
The control units also incorporate an automatic search system for fast and efficient self-programming of the DTT multiplexes of the UHF inputs.

The EKSEL range complies with the requirements for header equipment required by the Common Telecommunications Infrastructure Regulatory Regulation (ICT2) for access to telecommunication services inside buildings, approved by Royal Decree 346/2011 of March 11, since it incorporates very high selectivity filters that allow to guarantee a difference less than 3dB between channels of the same band.

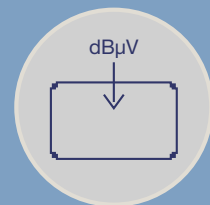
EKSEL programmable control panels: the perfect solution for the Second Digital Dividend



AUTOMATIC PROGRAMMING
+
AUTO SEARCH OF DTT MUXES



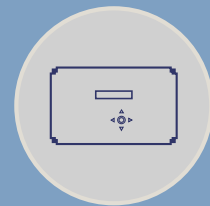
CHANNEL CONVERSION



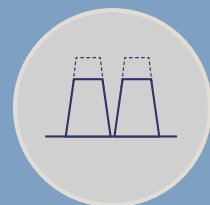
INPUT LEVEL MEASUREMENT



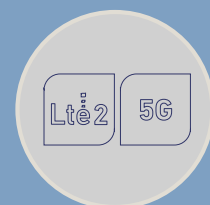
AUTOMATIC GAIN CONTROL



PROGRAMMING WITH DISPLAY
+
JOYSTICK



HIGH SELECTIVITY



COMPATIBLE SECOND DIVIDEND

PROGRAMMABLE

EKSEL 432

- 4 inputs (2 x UHF, 1 x FM, 1 x DAB / VHF-UHF selectable)
- 2 outputs (TER / TEST -30dB)
- 32 ultra-selective digital filters
- Gain > 55dB
- Output level 120dBuV (45004B) / 131dBuV (IMD3-36dB)
- Automatic digital multiplex search
- Programming with joystick and display. Simple navigation through the menu
- Processing functionality for channel conversion
- Measurement of the digital multiplex input level
- Automatic real-time gain control
- Automatic detection of the necessary filter LTE1 (4G) / LTE2 (5G)
- Preamp Power Option
- USB 2.0 / 3.0 for dump configurations
- Easy access internal power supply



REFERENCE	EKSEL 432		
Code	071011		
	UHF	FM	DAB/ VHF/ UHF
Inputs	2	1	1
Frequency range	470 MHz – 862MHz	88-108 MHz	195-223MHz
Max. gain	>55dB	35dB	>55dB
Number of filters	32*	-	32*
Filter channels	1	-	1
Equalizer	0.6	-	0.6
Atenuation control	0...20dB+AGC	0...20dB	0...20dB+AGC
Max. input level	110dBuV	-	110dBuV
Max. output level (DIN45004B)	120dBuV		
Max. output level (EN50083 IMD3 2CH -36dB)	128-131dBuV**		
Noise figure	-	<6dB	-
Isolation	>35dB@+/- 1MHz	>20dB@+/- 20MHz	>35dB@+/- 1MHz
Preamp Feeding	12V/24V/OFF	-	-
Max. power consumption preamplifier	...	-	-
Power supply	100-254 V/ 50 - 60 Hz		
Energy consumption	<20W		
Operational temperature range	0...50°C		
USB Port	USB 2.0/3.0 tipo A		
Screen	2 lines, 16 characters		
Connector type	F		
RF output	TER / TEST -30dB		

* Number of filters for UHF inputs. If the DAB input is selected, 6 filters will be assigned to this band and 26 to the UHF inputs

PROGRAMMABLE AMPLIFIERS

EKSEL 432 ICT

REFERENCE	EKSEL 432 ICT			
Code	071012			
	UHF	DAB/ VHF/ UHF	FM	SAT
Inputs	2	1	1	1
Frequency range	470 - 862 MHz	195-223 MHz	88-108 MHz	950-2150 MHz
Max. gain	>55dB	>55dB	35dB	40dB
Number of filters	32	32*	-	-
Filter channels	1	1	-	-
Equalizer	0..6	0..6	-	0..9
Attenuation control	0..20dB	0..20dB	0..20dB	0..20dB
Max. input level	110dB μ V	110dB μ V	-	-
Max. output level (DIN45004B)	116dB μ V (UHF/VHF); > 119 dB μ V SAT (35 dB)			
Max. output level (EN50083 IMD3 2CH -36dB)	>131dB μ V (terrestrial)			
Noise figure	-	-	<6dB	<8dB
Isolation	>35dB@ +/-1MHz	>35dB@ +/-1MHz	>20dB@ +/- 20MHz	>40dB(5-862MHz)
Preamp Feeding	12V/24V/OFF		-	13V/17V, 22kHz
Max. power consumption preamplifier	...	-	-	300mA
Power supply	100-254 V/ 50 - 60 Hz			
Energy consumption	<25W			
Operational temperature range	0..50°C			
USB Port	USB 2.0/3.0 tipo A			
Screen	2 lines, 16 characters			
Connector type	F			
RF output	SAT+ TER/ TER/ TEST -30dB			

- 5 inputs (2 x UHF, 1 x FM, 1 x DAB / VHF-UHF selectable, 1 x SAT)
- 3 outputs (TER / TER + SAT / TEST -30dB)
- 32 ultra-selective digital filters
- Gain > 55dB (DTT) / 40dB (SAT)
- DTT output level 118dB μ V (45004B) / 129dB μ V (IMD3-36dB)
- SAT 119dB μ V output level (IMD-35dB)
- Automatic digital multiplex search
- Programming with joystick and display. Simple navigation through the menu
- Processing functionality for channel conversion
- Measurement of the digital multiplex input level
- Automatic real-time gain control
- Automatic detection of the necessary filter LTE1 (4G) / LTE2 (5G)
- Preamp Power Option
- USB 2.0 / 3.0 for dump configurations
- Easy access internal power supply



* Number of filters for UHF inputs. If the DAB input is selected, 6 filters will be assigned to this band and 26 to the UHF inputs

PROGRAMMABLE AMPLIFIERS

EKSEL 632

- 6 inputs (3 x UHF-VHF selectable, 1 x FM, 1 x DAB / VHF-UHF selectable, 1 x AUX)
- 2 outputs (TER / TEST -30dB)
- 32 ultra-selective digital filters
- Gain > 55dB
- Output level 123dBuV (45004B) / 134dBuV (IMD3-36dB)
- Automatic digital multiplex search
- Programming with joystick and display. Simple navigation through the menu
- Processing functionality for channel conversion
- Measurement of the digital multiplex input level
- Automatic real-time gain control
- Automatic detection of the necessary filter LTE1 (4G) / LTE2 (5G)
- Preamp Power Option
- USB 2.0 / 3.0 for dump configurations
- Easy access internal power supply



REFERENCE	EKSEL 632			
Code	071013			
	UHF/ VHF	FM	AUX - option	DAB/ VHF/ UHF
Inputs	3	1	1	1
Frequency range	174 - 862 MHz	88-108 MHz	47-862 MHz	195-223 MHz
Max. gain	>55dB	35dB	20dB	>55dB
Number of filters	32*	-	-	32*
Filter channels	1	-	-	1*
Equalizer	0..6	-	-	0..6
Attenuation control	0..20dB	0..20dB	0..20dB	0..20dB
Max. input level	110dBμV	-		110dBμV
Max. output level (DIN45004B)	>122dBμV (terrestrial; 60 dB)			
Max. output level (EN50083 IMD3 2CH -36dB)	>134dBμV (terrestrial)			
Noise figure	-	<6dB	<6dB**	-
Isolation	>35dB@ +/-1MHz	>20dB@ +/-20MHz	>30dB	>35dB@ +/-1MHz
Preamp Feeding	12V/24V/ OFF	-	-	
Max. power consumption preamplifier	...	-	-	...
Power supply	100-254 V/ 50 - 60 Hz			
Energy consumption	<25W TERR**			
Operational temperature range	0..50°C			
USB Port	USB 2.0/3.0 tipo A			
Screen	2 lines, 16 characters			
Connector type	F			
RF output	TERR/ TEST -30dB			

* Number of filters for UHF inputs. If the DAB input is selected, 6 filters will be assigned to this band and 26 to the UHF inputs

PROGRAMMABLE AMPLIFIERS

EKSEL COMPACT

REFERENCE	EKSEL COMPACT		
Code	071015		
	VHF/UHF	FM	DAB/ VHF/ UHF
Inputs	2	1	1
Frequency range	195 - 694 / 790 /862 MHz	88-108 MHz	195 - 694 / 790 /862 MHz
Max. gain	>70dB autoreg.	35dB	>70dB autoreg.
Number of filters	32*	-	32*
Channels per filter	1	-	1
Selectivity	>30@+/-1MHz	>20@+/-20MHz	>30@+/-1MHz
Equalizer	0.6	-	0.6
Attenuation control	0...20dB+AGC	0...20dB	0...20dB+AGC
Max. input level	110dB μ V	-	110dB μ V
Max. output level (DIN45004B)	120dB μ V		
Max. output level (EN50083 IMD3 2CH -36dB)	128-131dB μ V**		
Noise figure	-	<6dB	-
Isolation	>35dB@+/-1MHz	>20dB@+/-20MHz	>35dB@+/-1MHz
Max. preamplifier energy consumption	12Vdc/OFF	-	12Vdc/OFF
Power supply	100-254Vac / 50-60Hz Opción de alimentación remota 12Vdc a través del conector de salida		
Energy consumption	<20W		
Operational temperature range	-10...45°C		
Screen	2 líneas, 16 caracteres		
Connector type	F		
RF output	TER / TEST -30dB		

- 4 inputs (1 x FM, 1 x VHF + DAB + UHF selectable, 2 x VHF/UHF selectable)
- 2 outputs (TER / TEST -30dB)
- 32 ultra-selective digital filters
- Gain >70dB autoreg.
- Output level 120dB μ V (45004B) / 131dB μ V (IMD3-36dB)
- Automatic digital multiplex search
- Programming with buttons and display. Simple navigation through the menu
- Processing functionality for channel conversion
- Automatic gain control in real time
- Preamp Power Option
- Possibility of remote power supply through the output connector
- Compact size: 190 x 120 x 50 mm



**EKSEL
COMPACT**

* Número de filtros para entradas UHF. Si se selecciona la entrada DAB, se asignarán 6 filtros a esta banda y 26 a las entradas UHF restantes

PROGRAMMABLE AMPLIFIERS

EKSEL COMPACT ICT

- 5 inputs (1 x FM, 1 x VHF + DAB + UHF selectable, 2 x VHF/UHF selectable 1 x SAT)
- 3 outputs (TER / TER + SAT / TEST -30dB)
- 32 ultra-selective digital filters
- Gain >70dB autoreg.
- Output level TDT 118dBuV (45004B) / 129dBuV (IMD3-36dB) Output level SAT 119dBuV (IMD3-35dB)
- Automatic digital multiplex search
- Programming with buttons and display. Simple navigation through the menu
- Processing functionality for channel conversion
- Automatic gain control in real time
- Preamp Power Option
- Possibility of remote power supply through the output connector
- Compact size: 190 x 120 x 50 mm

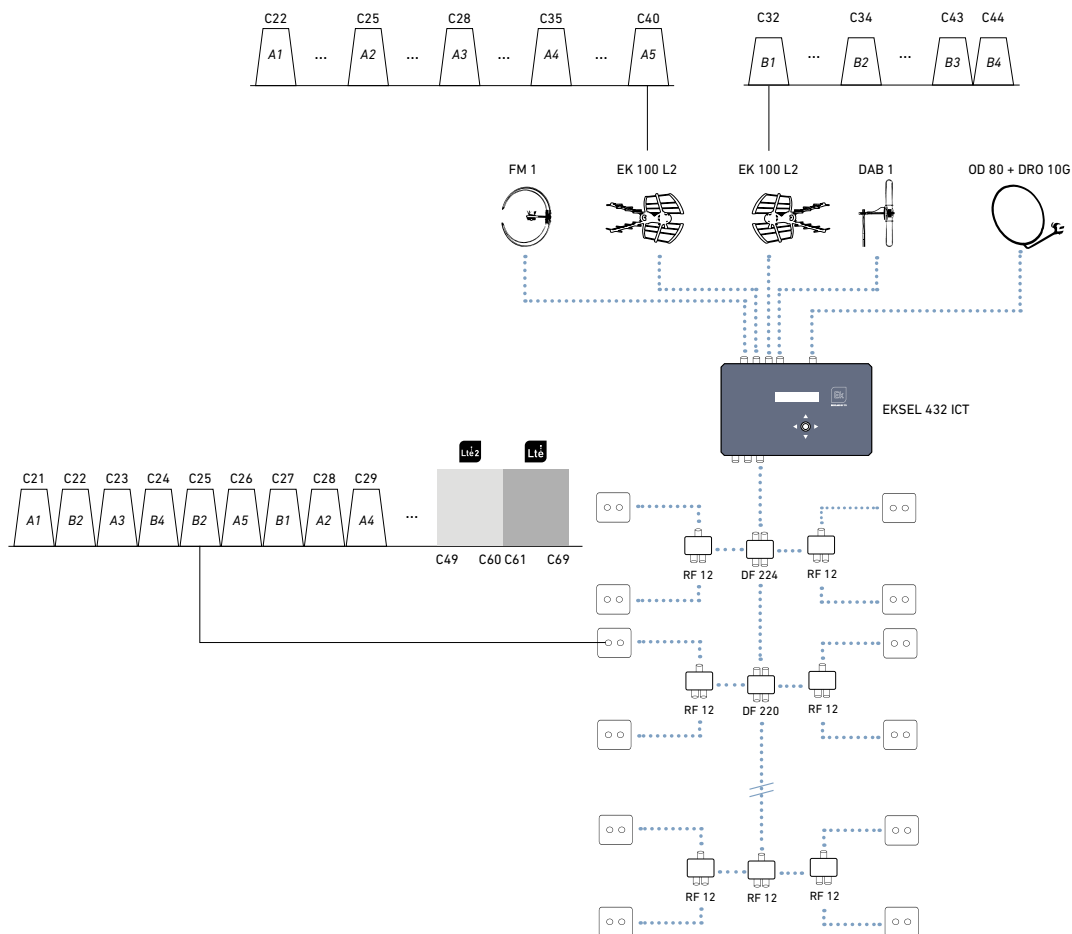


REFERENCE	EKSSEL COMPACT ICT			
Code	071016			
	VHF/ UHF	FM	DAB/ VHF/ UHF	SAT
Inputs	2	1	1	1
Frequency range	195 – 694 / 790 / 862 MHz	88-108 MHz	195 – 694 / 790 / 862 MHz	950-2150 MHz
Max. gain	>70dB autoreg.	35dB	>70dB autoreg.	40dB
Number of filters	32*	-	32*	-
Channels per filter	1	-	1	-
Equalizer	0..6	-	0..6	0..9
Attenuation control	0...20dB+ AGC	0...20dB	0...20dB+ AGC	0...20dB
Max. input level	110dBμV	-	110dBμV	-
Max. output level (DIN45004B)	118dBμV (UHF/VHF); > 119 dBμV SAT (35 dB)			
Max. output level (EN50083 IMD3 2CH -36dB)	>131dBμV (terrestrial)			
Noise figure	-	<6dB	-	<8dB
Isolation	>35dB@ +/-1MHz	>20dB@ +/-20MHz	>35dB@ +/-1MHz	>40dB (5-862MHz)
Max. preamplifier energy consumption	...	-	-	300mA
Power supply	100-254Vac / 50-60Hz 12Vdc remote power option through the output connector			
Energy consumption	<25W			
Operational temperature range	-10...45°C			
Screen	2 lines, 16 caracteres			
Connector type	F			
RF output	SAT+ TER/ TER/ TEST -30dB			

* Number of filters for UHF inputs. If the DAB input is selected, 6 filters will be assigned to this band and 26 to the UHF inputs

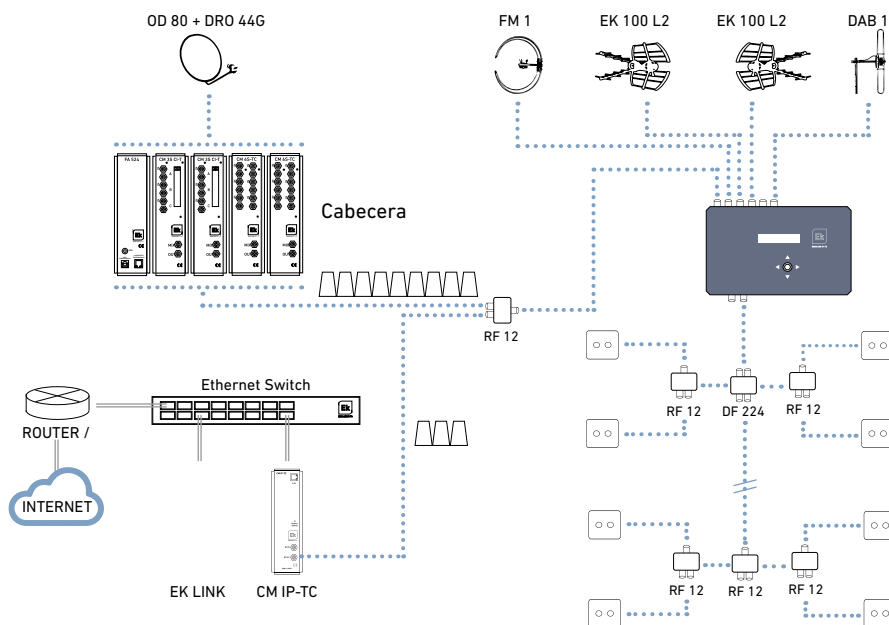
APPLICATION EXAMPLE 1

In this installation, 5 and 4 channels are received from two different transmitters, with evident differences in level between both receptions and slight differences between the channels received from each transmitter. Thanks to the ultra-selective digital filters, it is possible to move all received channels to start at the beginning of the band and completely equalized before being distributed.



APPLICATION EXAMPLE 2

This installation example illustrates the ability of the programmable control unit to process and order a large number of channels from all its inputs, amplify them and provide a good output level to be able to inject signal to the entire installation.





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