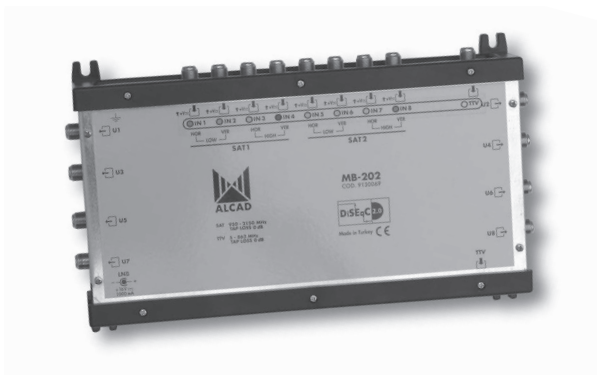




SISTEMA DE MULTICONMUTADORES  
MULTISWITCH SYSTEM  
MULTISWITCH SISTEMI  
SYSTÈME MULTICOMMUTATEUR



**SERIE 913 SERIES**

# MULTICONMUTADORES - MULTISWITCHES- MULTISWITCH'LER - MULTICOMMUTATEURS

CÓDIGO-CODE-CODE	9130069		9130070		9130071		
MODELO-MODEL-MODELE	MB-202		MB-203		MB-204		
Entradas/salidas/derivaciones Inputs/outputs/taps Giriş/çıkış/yan çıkış Entrées/sorties/dérivations	9/0/8		9/0/12		9/0/16		
Rango de frecuencia Frequency range Frekans Gamme de fréquences	Band	TV	SAT	TV	SAT	TV	SAT
	MHz	47-862	950-2150	47-862	950-2150	47-862	950-2150
Atenüación de derivación Tap loss Yan çıkış kaybı Atténuation de dérivation	dB ±TOL	0 ±3,0	0 ±3,0	0 ±3,0	1 ±3,0	0 ±3,0	1 ±3,0
Nivel de salida Output level Çıkış seviyesi Niveau de sortie	dBµV	99 (DIN 45004B)	100 (IMD <sub>3</sub> -35 dB) 95 (IMD <sub>2</sub> -35 dB)	96 (DIN 45004B)	100 (IMD <sub>3</sub> -35 dB) 92 (IMD <sub>2</sub> -35 dB)	96 (DIN 45004B)	100 (IMD <sub>3</sub> -35 dB) 92 (IMD <sub>2</sub> -35 dB)
Rechazo entre bandas Rejection between bands Girişler arası izolasyon Rejection entre bandes	dB	>25 TV/SAT >65 SAT/TV					
Desacopló entre usuarios Isolation between users Yan çıkışlar arası izolasyon Découplage entre utilisateurs	dB	>25 TV >30 SAT					
Desacopló de conmutación Isolation of switching Anatharma Découplage de commutation	dB	>30 SAT/SAT					
Conmutación de las salidas Switching the outputs Uydu seçimi Commutation des sorties		DiSEqC 2.0 14 V $\pm$ /18 V $\pm$ 0/22 KHz					
Alimentación de las LNB Power supply of the LNB LNB beslemesi Alimentation des LNB		1000 mA / 16 V $\pm$					
Consumo desde el receptor Consumption from the receiver Uydu alıcısından çekilen akım Consumation du récepteur	mA	42 $\pm$ 2,0 (14/18 V $\pm$ )					

IMD<sub>3</sub> -35 dB: 2 equal carriers, EN 50083-5  
IMD<sub>2</sub> -35 dB: 2 equal carriers, EN 50083-5

Data published in compliance with the definitions and measurement methods of the following standards: EN 50083-3, EN 50083-4 and EN 50083-5

# MULTICONMUTADORES - MULTISWITCHES- MULTISWITCH'LER - MULTICOMMUTATEURS

CÓDIGO-CODE-CODE	9130072		9130073		9130170		
MODELO-MODEL-MODELE	MB-205		MB-206		MB-208		
Entradas/salidas/derivaciones Inputs/outputs/taps Giriş/çıkış/yan çıkış Entrées/sorties/dérivations	9/0/20		9/0/24		9/0/32		
Rango de frecuencia Frequency range Frekans Gamme de fréquences	Band	TV	SAT	TV	SAT	TV	SAT
	MHz	47-862	950-2150	47-862	950-2150	47-862	950-2150
Atenuación de derivación Tap loss Yan çıkış kaybı Atténuation de dérivation	dB ±TOL	2 ±3,0	2 ±3,0	2 ±3,0	2 ±3,0	-1 ±3,0	1 ±3,0
Nivel de salida Output level Çıkış seviyesi Niveau de sortie	dBµV	95 (DIN 45004B)	100 (IMD <sub>3</sub> -35 dB) 95 (IMD <sub>2</sub> -35 dB)	95 (DIN 45004B)	100 (IMD <sub>3</sub> -35 dB) 92 (IMD <sub>2</sub> -35 dB)	95 (DIN 45004B)	100 (IMD <sub>3</sub> -35 dB) 92 (IMD <sub>2</sub> -35 dB)
Rechazo entre bandas Rejection between bands Girişler arası izolasyon Rejection entre bandes	dB	>25 TV/SAT >65 SAT/TV					
Desacoplo entre usuarios Isolation between users Yan çıkışlar arası izolasyon Découplage entre utilisateurs	dB	>25 TV >30 SAT					
Desacoplo de conmutación Isolation of switching Anatharma Découplage de commutation	dB	>30 SAT/SAT					
Conmutación de las salidas Switching the outputs Uydu seçimi Commutation des sorties		DiSEqC 2.0 14 V $\pm$ / 18 V $\pm$ 0/22 KHz					
Alimentación de las LNB Power supply of the LNB LNB beslemesi Alimentation des LNB		1000 mA / 16 V $\pm$					
Consumo desde el receptor Consumption from the receiver Uydu alıcısından çekilen akım Consumation du récepteur	mA	42 ±2,0 (14/18 V $\pm$ )					

IMD<sub>3</sub> -35 dB: 2 equal carriers, EN 50083-5  
IMD<sub>2</sub> -35 dB: 2 equal carriers, EN 50083-5

Data published in compliance with the definitions and measurement methods of the following standards: EN 50083-3, EN 50083-4 and EN 50083-5

**MULTICONMUTADORES - MULTISWITCHES- MULTISWITCH'LER - MULTICOMMUTATEURS**

CÓDIGO-CODE-CODE	9130094		9130095		9130096		
MODELO-MODEL-MODELE	ML-202		ML-203		ML-204		
Entradas/salidas/derivaciones Inputs/outputs/taps Giriş/çıkış/yan çıkış Entrées/sorties/dérivations		9/9/8		9/9/12		9/9/16	
Rango de frecuencia Frequency range Frekans Gamme de fréquences	Band	TV	SAT	TV	SAT	TV	SAT
	MHz	47-862	950-2150	47-862	950-2150	47-862	950-2150
Atenuación de derivación Tap loss Yan çıkış kaybı Atténuation de dérivation	dB ±TOL	0 ±3,0	0 ±3,0	0 ±3,0	1 ±3,0	0 ±3,0	1 ±3,0
Atenuación de paso Through loss Geçiş kaybı Atténuation de passage	dB ±TOL	-2,5 ±3,5	1,9 ±1,0	-0,8 ±3,2	3,4 ±1,7	-0,8 ±3,2	3,4 ±1,7
Nivel de salida Output level Çıkış seviyesi Niveau de sortie	dB $\mu$ V	99 (DIN 45004B)	100 (IMD <sub>3</sub> -35 dB) 95 (IMD <sub>2</sub> -35 dB)	96 (DIN 45004B)	100 (IMD <sub>3</sub> -35 dB) 92 (IMD <sub>2</sub> -35 dB)	96 (DIN 45004B)	100 (IMD <sub>3</sub> -35 dB) 92 (IMD <sub>2</sub> -35 dB)
Rechazo entre bandas Rejection between bands Girişler arası izolasyon Rejection entre bandes	dB	>25 TV/SAT >65 SAT/TV					
Desacoplo entre usuarios Isolation between users Yan çıkışlar arası izolasyon Découplage entre utilisateurs	dB	>25 TV >30 SAT					
Desacoplo de conmutación Isolation of switching Anatharma Découplage de commutation	dB	>30 SAT/SAT					
Conmutación de las salidas Switching the outputs Uydu seçimi Commutation des sorties		DiSEqC 2.0 14 V $\overline{=}$ /18 V $\overline{=}$ 0/22 KHz					
Alimentación de las LNB Power supply of the LNB LNB beslemesi Alimentation des LNB		1000 mA / 16 V $\overline{=}$					
Consumo desde el receptor Consumption from the receiver Uydu alıcısından çekilen akım Consumation du récepteur	mA	42 $\pm$ 2,0 (14/18 V $\overline{=}$ )					

 IMD<sub>3</sub> -35 dB: 2 equal carriers, EN 50083-5

 IMD<sub>2</sub> -35 dB: 2 equal carriers, EN 50083-5

Data published in compliance with the definitions and measurement methods of the following standards: EN 50083-3, EN 50083-4 and EN 50083-5

**MULTICONMUTADORES - MULTISWITCHES- MULTISWITCH'LER - MULTICOMMUTATEURS**

CÓDIGO-CODE-CODE	9130097		9130098		9130171		
MODELO-MODEL-MODELE	ML-205		ML-206		ML-208		
Entradas/salidas/derivaciones Inputs/outputs/taps Giriş/çıkış/yan çıkış Entrées/sorties/dérivations		9/9/20		9/9/24		9/9/32	
Rango de frecuencia Frequency range Frekans Gamme de fréquences	Band	TV	SAT	TV	SAT	TV	SAT
	MHz	47-862	950-2150	47-862	950-2150	47-862	950-2150
Atenuación de derivación Tap loss Yan çıkış kaybı Atténuation de dérivation	dB ±TOL	2 ±3,0	2 ±3,0	2 ±3,0	2 ±3,0	2 ±3,0	0 ±3,0
Atenuación de paso Through loss Geçiş kaybı Atténuation de passage	dB ±TOL	-4,1 ±4,4	4,9 ±2,5	-4,1 ±4,4	4,9 ±2,5	5,0 ±2,0	4,1 ±2,5
Nivel de salida Output level Çıkış seviyesi Niveau de sortie	dB $\mu$ V	95 (DIN 45004B)	100 (IMD <sub>3</sub> -35 dB) 95 (IMD <sub>2</sub> -35 dB)	95 (DIN 45004B)	100 (IMD <sub>3</sub> -35 dB) 92 (IMD <sub>2</sub> -35 dB)	95 (DIN 45004B)	100 (IMD <sub>3</sub> -35 dB) 92 (IMD <sub>2</sub> -35 dB)
Rechazo entre bandas Rejection between bands Girişler arası izolasyon Rejection entre bandes	dB	>25 TV/SAT >65 SAT/TV					
Desacoplo entre usuarios Isolation between users Yan çıkışlar arası izolasyon Découplage entre utilisateurs	dB	>25 TV >30 SAT					
Desacoplo de conmutación Isolation of switching Anatharma Découplage de commutation	dB	>30 SAT/SAT					
Conmutación de las salidas Switching the outputs Uydu seçimi Commutation des sorties		DiSEqC 2.0 14 V $\pm$ / 18 V $\pm$ 0/22 KHz					
Alimentación de las LNB Power supply of the LNB LNB beslemesi Alimentation des LNB		1000 mA / 16 V $\pm$					
Consumo desde el receptor Consumption from the receiver Uydu alıcısından çekilen akım Consumation du récepteur	mA	42 $\pm$ 2,0 (14/18 V $\Rightarrow$ )					

 IMD<sub>3</sub> -35 dB: 2 equal carriers, EN 50083-5

 IMD<sub>2</sub> -35 dB: 2 equal carriers, EN 50083-5

Data published in compliance with the definitions and measurement methods of the following standards: EN 50083-3, EN 50083-4 and EN 50083-5

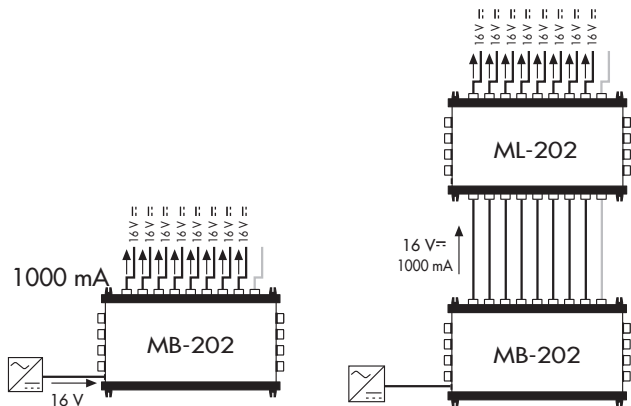
# CÓMO ALIMENTAR LOS MULTISWITCHES

## HOW TO FEED THE MULTISWITCH

### MULTISWITCH BESLEMESİ

### COMMENT ALIMENTER LE MULTICOMMUTATEUR

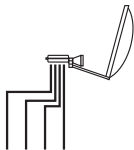
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INSTALACIÓN DE LNBS  
INSTALLING LNB  
LNB KULLANIMI  
INSTALLATION DES LNB

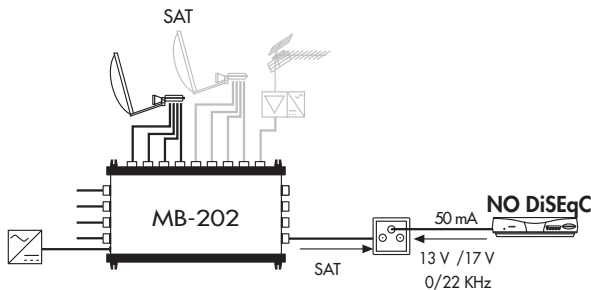
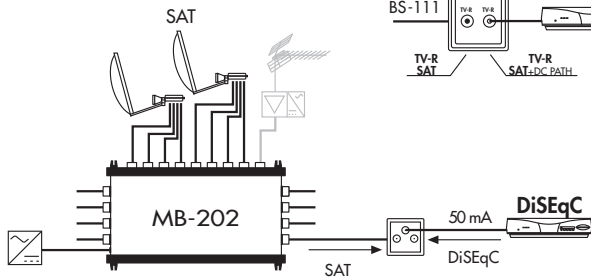
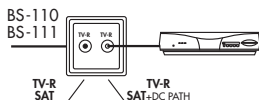
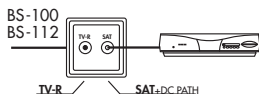
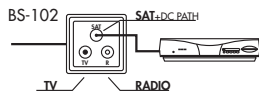
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QUATRO



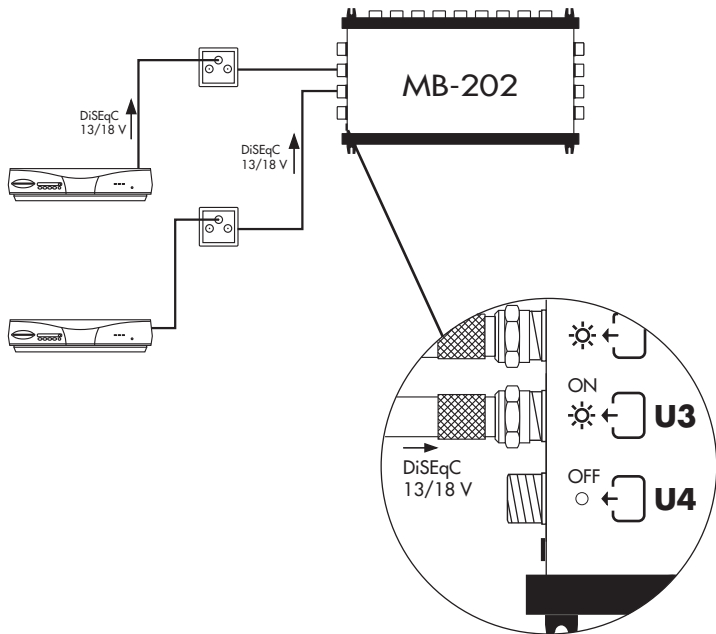
High Horizontal  
High Vertical  
Low Horizontal  
Low Vertical

# CONMUTACIÓN DE LAS SALIDAS SWITCHING THE OUTPUTS UYDU SECİMİ COMMUTATION DES SORTIES



LED DE CONEXIÓN DE USUARIO  
USER CONNECTION LED  
ABONE BAĞLANTI LEDİ  
LED DE CONNEXION DE L'UTILISATEUR

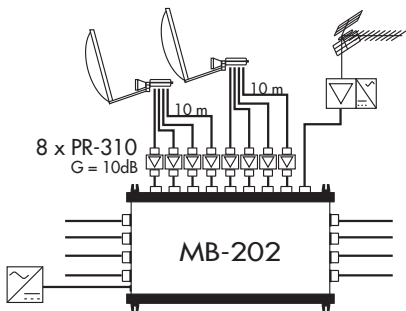
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PREAMPLIFICACIÓN DE LA SEÑAL DE ANTENA  
PREAMPLIFICATION OF THE ANTENNA SIGNAL  
ÖN YÜKSELTİCİ BAĞLANTISI  
PRE AMPLIFICATION DU SIGNAL D'ANTENNE

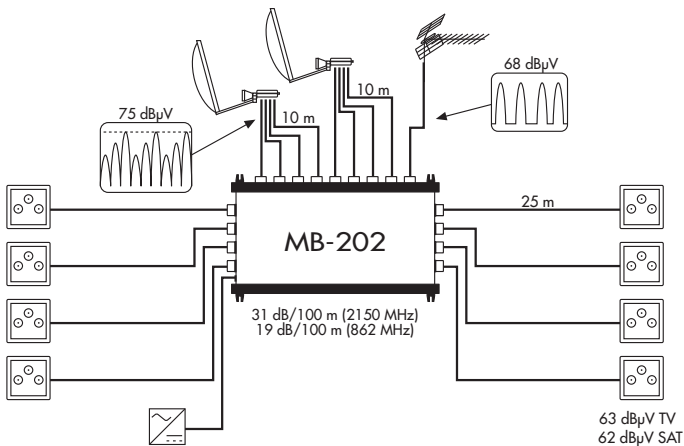
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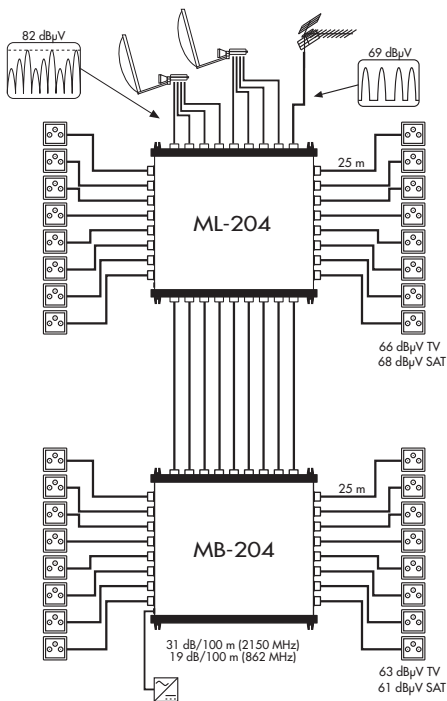
9 x 8

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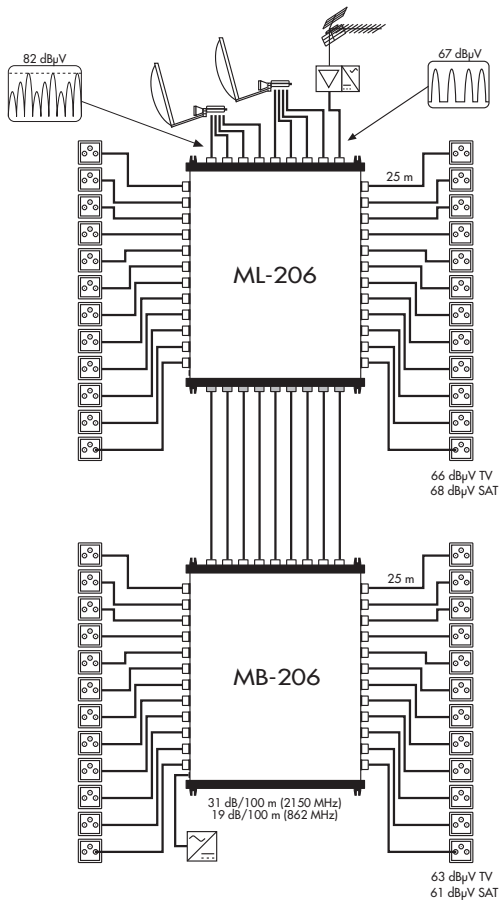
Modo activo / Active mode / Aktif durum / Mode actif



Modo activo / Active mode / Aktif durum / Mode actif



Modo activo / Active mode / Aktif durum / Mode actif



## Instrucciones de seguridad

No exponga el alimentador a goteo o proyecciones de agua. No sitúe objetos llenos de líquido, como vasos, sobre el equipo. No sitúe fuentes de llama desnuda, tales como velas encendidas, sobre el equipo. No cubra las aberturas de ventilación del equipo con objetos, tales como periódicos, cortinas, etc. Instale el equipo dejando un espacio libre alrededor para disponer de una ventilación suficiente. Instale el equipo de modo que la clavija de red de alimentación o el conector del equipo sean fácilmente accesibles.

## Safety Instructions

Do not place the power supply where water can drip or splash onto it. Do not place objects containing liquid, such as glasses, on the equipment. Do not place sources of naked flame, such as burning candles, on the equipment. Do not block the ventilation slots of the equipment with objects such as newspapers, curtains, etc. When installing the equipment, leave some free space around it to provide adequate ventilation. Install the equipment in such a way that the mains supply plug or the connector of the equipment can be easily reached.

## Consignes de sécurité

N'exposez pas l'alimentation à des projections ou gouttes d'eau. Ne posez pas d'objets contenant du liquide, tels que des verres, sur l'équipement. Ne mettez pas de source de flamme, comme des bougies, sur l'équipement. Ne bouchez pas les ouvertures de ventilation de l'équipement avec des objets comme des journaux, des rideaux, etc. Installez l'équipement en laissant un espace libre tout autour de lui afin de permettre une ventilation suffisante. Installez l'équipement de telle sorte que la prise d'alimentation d'électricité ou le connecteur de l'équipement soit facilement accessible.



## DECLARATION OF CONFORMITY

according to EN ISO/IEC 17050-1:2004

**Company Name:** ALCAD, S.L.  
**Company Address:** Pol. Ind. Arreche-Ugalde, 1  
Apdo. 455  
20305 IRUN (Guipúzcoa)  
**SPAIN**

declares that the product

**Model Number(s):** MB-202, MB-203, MB-204, MB-205, MB-206, MB-208 ML-202,  
ML-203, ML-204, ML-205, ML-206, ML-208

**Product Description:** MULTISWITCH SYSTEM

**Product Option(s):** INCLUDING ALL OPTIONS

Is in conformity with:

Safety: EN 60728-11:2005

EN 60065:2002

EMC: EN 50083-2:2006

## Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 2006/95/CE and the EMC Directive 89/336/EEC and their relevant amendments, gathered under the directive 93/68/EEC.

Note: to comply with these directives, do not use the products without covers and operate the system as specified.



Irún, 29 Jun 2012

Antton Galarza  
General Manager

Especificaciones sujetas a modificación sin previo aviso  
Specifications subject to modifications without prior notice  
Les spécifications sont soumises à de possible modifications sans avis préalable



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ISO 9001



ISO 9001