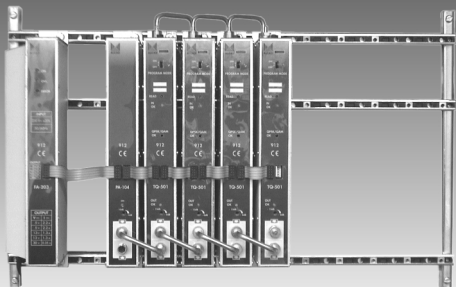




- ▶ TRANSMODULADOR QPSK-QAM
- ▶ QPSK-QAM TRANSMODULATOR
- ▶ TRANSMODULATION QPSK-QAM
- ▶ TRANSMODULADOR QPSK-QAM
- ▶ QPSK-QAM UMSETZER-MODULATOR



**SERIE/RANGE 912**

**TRANSMODULADOR QPSK-QAM  
QPSK-QAM TRANSMODULATOR  
TRANSMODULATEUR QPSK-QAM  
TRANSMODULADOR QPSK-QAM  
QPSK-QAM UMSETZER-MODULATOR**

CODIGO-CODE-CODE-CODIGO-CODE		9120033
TIPO-TYPE-TYPE-TIPO-TYP		TQ-501
SISTEMA DE TV TV SYSTEM SYSTEME DE TV SISTEMA DE TV TV SYSTEM		DVB-S → DVB-C
<b>RECEPCION QPSK - QPSK RECEIVER - RECEPTUR QPSK - RECEPTOR QPSK - UMSETZER QPSK</b>		
RANGO DE FRECUENCIAS FREQUENCY RANGE GAMME DE FREQUENCE RANGO DE FRECUENCIAS FREQUENZBEREICH	MHz	920 .. 2150
RESOLUCION DE FRECUENCIA FREQUENCY STEP REGLAGE DE FREQUENCE RESOLUCAO DE FREQUENCIA FREQUENZEN SCHRITTEN	MHz	1
NIVEL DE ENTRADA INPUT LEVEL NIVEAU D'ENTREE NIVEL DE ENTRADA EINGANGSPEGEL	dB $\mu$ V	43 .. 83
	dBm	-65 .. -25
ANCHO DE BANDA BAND WIDTH LARGEUR DE BANDE LARGURA DE BANDA BANDBREITE	MHz	36
ALIMENTACION LNB LNB POWER SUPPLY ALIMENTATION LNB ALIMENTAÇÃO LNB LNB NETZEIL	V $\cdots$	+13
	mA	350 max
VELOCIDAD DE SIMBOLO SYMBOL RATE DEBIT DE SYMBOLES SYMBOL RATE SYMBOL RATE	Mbaud	8 .. 30
F.E.C. F.E.C. F.E.C. F.E.C. F.E.C.		Auto, 1/2, 2/3, 3/4, 5/6, 7/8 DVB: EN 300429
<b>MODULADOR QAM - QAM MODULATOR - MODULATEUR QAM - MODULADOR QAM - QAM MODULATOR</b>		
MODULACION MODULATION MODULATION MODULAÇÃO MODULATION		4 -16 - 32 - 64 - 128 - 256 QAM

**TRANSMODULADOR QPSK-QAM**  
**QPSK-QAM TRANSMODULATOR**  
**TRANSMODULATEUR QPSK-QAM**  
**TRANSMODULADOR QPSK-QAM**  
**QPSK-QAM UMSETZER-MODULATOR**

CODIGO-CODE-CODE-CODIGO-CODE		9120033	
TIPO-TYPE-TIPO-TYP		TQ-501	
ANCHO DE BANDA IF BAND WIDTH LARGEUR DE BANDE FI LARGURA DE BANDA FI ZF BANDBREITE	MHz	9,2 max	
RELACION PORTADORA/RUIDO (C/N) CARRIER/NOISE RATIO (C/N) RAPPORT PORTEUSE/BRUIT (C/N) RELAÇÃO PORTADORA/RUIDO (C/N) SIGNAL-RAUSCHABSTAND (C/N)	dB	> 36	
<b>SAIDA RF - RF OUT - RF SORTIE - SAIDA RF - RF AUSGANG</b>			
RANGO DE FRECUENCIAS FREQUENCY RANGE GAMME DE FREQUENCE RANGO DE FRECUENCIAS FREQUENZBEREICH	MHz	47.. 862	
RESOLUCION DE FRECUENCIA FREQUENCY STEP REGLAGE DE FREQUENCE RESOLUCION DE FRECUENCIA FREQUENZEN SCHRITTEN	MHz	1	
NIVEL DE SALIDA OUTPUT LEVEL NIVEAU DE SORTIE NIVEL DE SAIDA AUSGANGSPEGEL	dB $\mu$ V	78 $\pm$ 2,0	
REGULACION NIVEL DE SALIDA OUTPUT LEVEL ADJUST REGLAGE NIVEAU DE SORTIE REGULAÇÃO NIVEL DE SAIDA AUSGANGSPEGELREGELUNG	dB	15	
ESPUREOS EN BANDA SPURIOUS IN BAND SIGNAUX RESIDUELLES ESPUREOS NA BANDA STORSIGNALE IM BEREICH	dB	- 54	
<b>CARACTERISTICAS GENERALES - GENERAL FEATURES - CARCTERISTIQUES GENERALES - CARACTERISTICAS GERAIS - HAUPTMERKMALE</b>			
CONECTOR CONNECTOR CONNECTEUR CONECTOR STECKER		F	
ALIMENTACION POWER SUPPLY ALIMENTATION ALIMENTAÇÃO NETZEIL	V $\dots$	5	13
	mA	950	130 + LNB

**AMPLIFICADORES BANDA ANCHA**  
**BROADBAND AMPLIFIERS**  
**AMPLIFICATEURS LARGE BANDE**  
**AMPLIFICADORES BANDA LARGA**  
**BREITBANDVERSTARKER**

CODIGO-CODE-CODE-CODIGO-CODE		9120061
TIPO-TYPE-TYPE-TIPO-TYP		PA-102
RANGO DE FRECUENCIAS FREQUENCY RANGE GAMME DE FREQUENCE RANGO DE FRECUENCIAS FREQUENZBEREICH	MHz	40 .. 862
GANANCIA GAIN GAIN GANHO VERSTÄRKUNG	dB	42 ± 2,0
REGULACION DE GANANCIA GAIN ADJUST REGLAGE DE GAIN REGULAÇÃO DO GANHO VERSTÄRKUNGSGRAD-REGELUNG	dB	10
TEST DE SALIDA OUTPUT TEST POINT SORTIE TEST SAIDA DE TEST TESTAUSGANG	dB	-30 ± 1,0
NIVEL DE SALIDA OUTPUT LEVEL NIVEAU DE SORTIE NIVEL DE SAIDA AUSGANGSPEGEL	dB $\mu$ V	119 DIN 45004B
		116 IMD <sub>3</sub> -60 dB
NIVEL DE SALIDA OUTPUT LEVEL NIVEAU DE SORTIE NIVEL DE SAIDA AUSGANGSPEGEL	dB $\mu$ V	110 IMD <sub>2</sub> -60 dB
NIVEL DE SALIDA OUTPUT LEVEL NIVEAU DE SORTIE NIVEL DE SAIDA AUSGANGSPEGEL	dB $\mu$ V	103 CTB -60 dB
		104 CSO -60 dB
		104 XMOD -60 dB
FIGURA DE RUIDO NOISE FIGURE FACTEUR DE BRUIT FIGURA DE RUIDO RAUSCHMAß	dB	8
ATENUACION ENTRADA EXTENSION EXTENSION INPUT LOSS ATTENUATION A L'ENTRÉE D'EXTENSION ATENUAÇÃO DA ENTRADA DE EXTENSÃO DAMPFUNG EXTERNER EINGANG	dB	0 ± 2,0

DIN 45004B: 3 unequal carriers, IMD<sub>3</sub> at 60 dB  
IMD<sub>3</sub> -60 dB: 2 equal carriers, EN 50083-3  
IMD<sub>2</sub> -60 dB: 2 equal carriers, EN 50083-3

CTB -60 dB: 42 equal carriers, EN 50083-3  
CSO -60 dB: 42 equal carriers, EN 50083-3  
XMOD -60 dB: 42 equal carriers, EN 50083-3

**AMPLIFICADORES BANDA ANCHA  
BROADBAND AMPLIFIERS  
AMPLIFICATEURS LARGE BANDE  
AMPLIFICADORES BANDA LARGA  
BREITBANDVERSTARKER**

CODIGO-CODE-CODE-CODIGO-CODE		9120061		
TIPO-TYPE-TYPE-TIPO-TYP		PA-102		
ALIMENTACION POWER SUPPLY ALIMENTATION ALIMENTAÇÃO NETZTEIL	V ---	+30		
	mA	270		

**ALIMENTADOR  
POWER SUPPLY  
ALIMENTATION  
ALIMENTAÇÃO  
NETZTEIL**

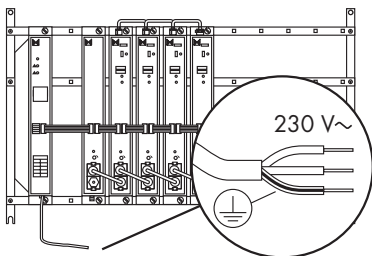
CODIGO-CODE-CODE-CODIGO-CODE		9120035		
TIPO-TYPE-TYPE-TIPO-TYP		FA-203		
TENSION DE SALIDA OUTPUT VOLTAGE TENSION DE SORTIE TENSÃO DE SAÍDA AUSGANGSPEGEL	V ---	+5	+13	+30
	mA	4400	2600	350
TENSION DE RED MAINS VOLTAGE TENSION SECTEUR TENSÃO DE REDE EINGANGSSPANNUNG	V ~	230±20%		50/60 Hz
CONSUMO RED MAINS CONSUMPTION TENSION SECTEUR TENÇÃO DE REDE LEISTUNGS-AUFNAHME	VA	100		

**EQUIPO COMPLETO  
COMPLETE SYSTEM  
EQUIPO COMPLETO  
EQUIPAMENTO COMPLETO  
KOMPLETTES SYSTEM**

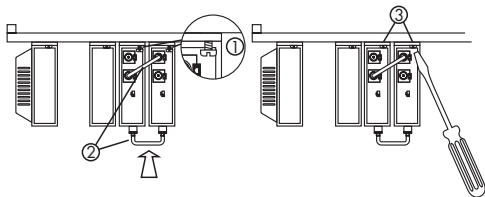
TEMPERATURA DE FUNCIONAMIENTO OPERATING TEMPERATURE TEMPERATURE DE FONCTIONNEMENT TEMPERATURA DE FUNCIONAMENTO BETRIEBSTEMPERATUR	° C	-10..+65		
INDICE DE PROTECCION PROTECTION INDEX INDICE DE PROTECTION INDICE DE PROTECÇÃO SCHUTZKLASSE		IP 20C		

- ▶ Programable con el programador PS-002 ver. 2.1 y posteriores
- ▶ Programmable with programmer PS-002 version 2.1 and later
- ▶ Programmable avec le programmeur PS-002 ver. 2.1 et ultérieures
- ▶ Programável com o programador PS-002 ver. 2.1 e posteriores
- ▶ Mit dem PS-002 programmierbar version 2.1 und höher

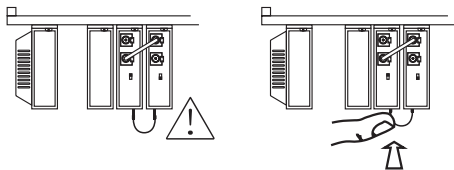
- ▶ CONEXION A LA RED ELECTRICA
- ▶ CONNECTION TO THE MAINS
- ▶ CONNEXION AU RESEAU ELECTRIQUE
- ▶ CONEXÃO A REDE ELETRICA
- ▶ NETZANSCHLUSS



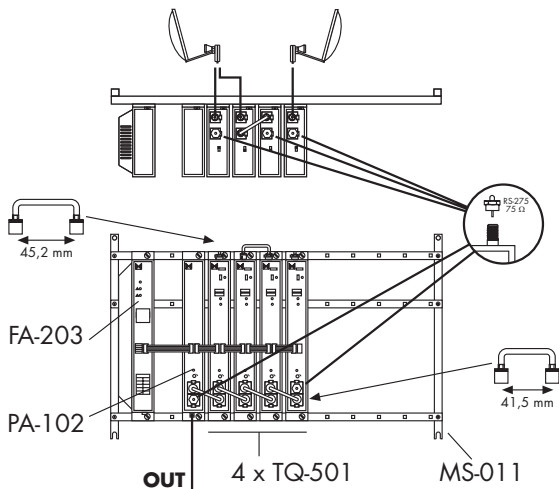
- ▶ COMO INSERTAR LOS PUENTES
- ▶ HOW TO INSERT CONNECTION BRIDGES
- ▶ COMMENT INSERER LES PONTETS
- ▶ COMO INSERIR AS PONTEÇ PARA CONEXÃO
- ▶ WIE DIE VERBINDUNGSBRÜCKEN MONTIERT WERDEN



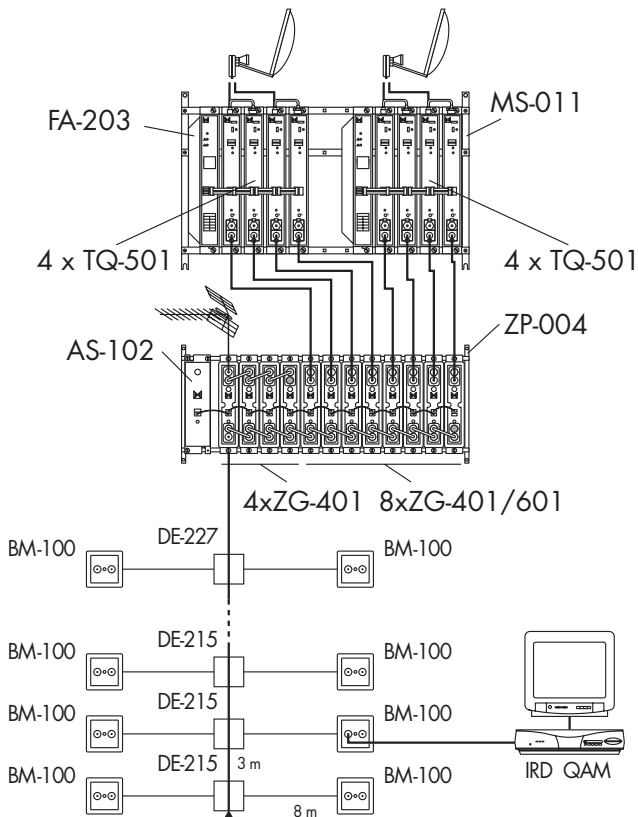
- ▶ COMO INSERTAR LOS CABLES THE ALIMENTACION
- ▶ HOW TO INSERT THE SUPPLY CABLES
- ▶ COMMENT INSERER LES CABLES D'ALIMENTATION
- ▶ COMO INSERIR OS CABOS DE ALIMENTAÇÃO
- ▶ WIE DIE STROMVERSORUNGSKABEL MONTIERT WERDEN



- ▶ AMPLIFICACION BANDA ANCHA
- ▶ BROADBAND AMPLIFICATION
- ▶ AMPLIFICATION LARGE BANDE
- ▶ AMPLIFICAÇÃO BANDA LARGA
- ▶ BANDBREITE VERSTÄRKUNG

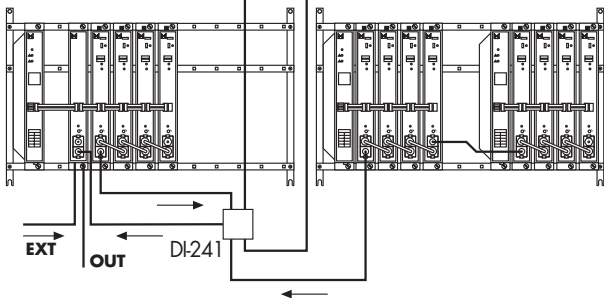
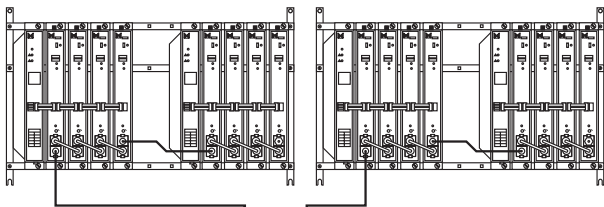
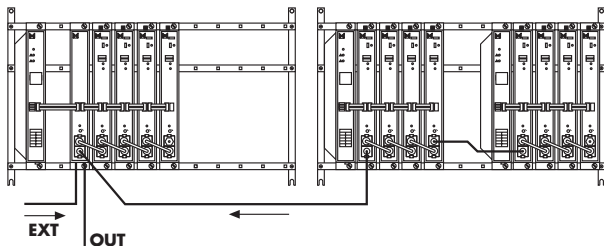


- ▶ AMPLIFICACION MONOCANAL
- ▶ MONOCHANNEL AMPLIFICATION
- ▶ AMPLIFICATION MONOCANAL
- ▶ AMPLIFICAÇÃO MONOCANAL
- ▶ EINKANAL VERSTÄRKUNG





- ▶ ESQUEMAS TÍPICOS
- ▶ CONNECTION DIAGRAMS
- ▶ SCHEMAS DE BRANCHEMENT
- ▶ ESQUEMAS DE CONEXÃO
- ▶ SCHALTSCHEMEN





# DECLARATION OF CONFORMITY

according to EN 45014

**Manufacturer's Name:** ALCAD, S.A.  
**Manufacturer's Address:** Polígono Industrial de Ventas  
C/Gabiria, 15 - Apdo. 455  
**20305 IRUN** (Guipúzcoa)  
**SPAIN**

declares that the product

**Product Name:** 912 Series: TRANSMODULATION SYSTEM  
**Model Number(s):** TQ-501, PA-102, FA-203

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

is in conformity with:

Safety: EN 50083-1

EMC: EN 50083-2, EN 50081-1 Electromagnetic Compatibility for Equipment  
IEC 61000-4-2:1995 / EN 50082-1:1997 ESD 8KV AD, 4KV CD.  
IEC 61000-4-4:1995 / EN 50082-1:1997 EFT 0,5KV-5KHz Sig. Lines, 1KV-5KHz Power Lines.  
IEC 61000-4-5:1995 / EN 50082-1:1997 CWG 1KV Power Lines.  
IEC 61000-4-11:1994 / EN 50082-1:1997 Dips and Variation.

Technical Features : EN 50083-5 / EN 50083-3

## Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 73/23/ECC, and the EMC Directive 89/336/EEC and their relevant amendments, gathered under the directives 93/68/EEC.

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



Irún,

03-02-02

Date

Anton Galarza / General Manager



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ISO 9001

