

ASK F6 Amplifier User Manual

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ASK F6 Amplifier



Generic product description

The product is an antenna amplifier for indoor use, to be installed in accordance with the instructions, for receiving and amplifying signals of the subset of radio frequencies for which it was designed. For correct operation, the product is connected to passive reception elements built into the car.

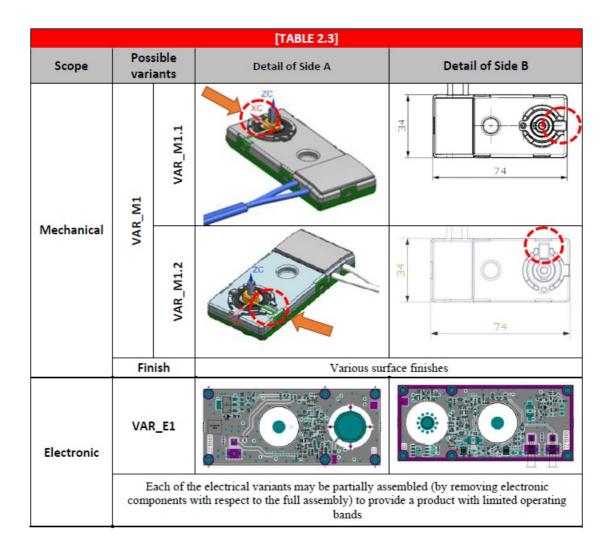
[TABLE 1]	
Product family:	AM-FM-DAB PSA Amplifier
Antenna:	Rod type, not supplied in the packaging
	· Unidirectional signal amplifier that operates in the frequency bands given in table 2.1 a nd 2.2.
Functional descripti	· The amplifier was designed for indoor use, preferably mounted under thin (less than 2 mm) metal surfaces .
	The product needs a power supply for correct operation, which must be supplied through each coaxial cable, i.e. superimposed on the RF
	signal carried through these cables.
	For use in an internal environment
Installation environ ment:	Connected to a power supply with automatic current limiting or an overcurrent protection system that allows a maximum current of 1 A and a minimum of 150 mA. Recommended 200 mA
	(e.g. fuse)
Operating temperat ure:	-40°C / +85°C
Weight	Less than 100 g

Variants Table

[TABLE 2.1]									
Secondary	Secondary c	Prod	uct fun						
ASK P/N	ode	АМ	FM	DAB	Tel.	Nav	FFB	TV	Notes
83852800	5802128245	L1	L1	w					Ref
83847600	137443008	L1	L1	W					Var
83852700	5802105847	L1	L1	W					Var
83848500	519901390	L1	L1	W					Var
83859500	5802423167	L1	L1	W					Var
83862000	52134159	L1	L1	W					Var
83862700	5802707245	L1	L1	W					Var
83863800	5801714113	L1	L1	W					Var

[TABLE 2.2	2]						
Product o	perati	ng ba	nd classi	fication			
Function	Function class Alternative columns			Sub-group	Bot. Freq.	Top Freq.	Notes
A.N.4	147			LW	0,155	0,522	
AM	W	L1		MW	0,522	1.71	
FM	W	L1	EU	87	108		
I IVI	"	L2		Jap	76	95	
DAB	W	L1		Band III	174	240	
DAD	"			Band L	1452	1492	
		L2		Jap	90	770	
				Band I	47	68	
				Band III	174	230	
			L4		1	1	

TV	W	L1	L3		Band IV	470	606	L3 guarantees operation over the whole range: fm in Band I Fmax Band IV with no discontinuity
					Band V	606	862	L1 guarantees operation over the whole range: fm in Band I Fmax Band V with no discontinuity
		L4		L3	Band 315	314,997	315,003	
FFB	W		L5	L2	Band 433	433,917	433,923	
				L1	Band 868	868,298	868,302	
		, ,			GSM	790	960	
TEL	W	L1			DCS	1710	1880	
					UMTS	1920	2170	
		L1			GPS	1571.42	1579.42	
NAV	W				Glonass	1598.06	1605.38	
					Beidoo	1559.05	1563.15	
			L5	L1	LTE 700	690	790	
				L2	LTE 800	790	960	
				L3	LTE 1450	1427	1510	
					GSM 1800 GSM 1900	1710	1990	
LTE	W				LTE 2015	2010	2025	
			L4		UMTS downlink	2110	2170	
					LTE 2350 Wi-Fi	2300	2690	



Product functions – Specific Description

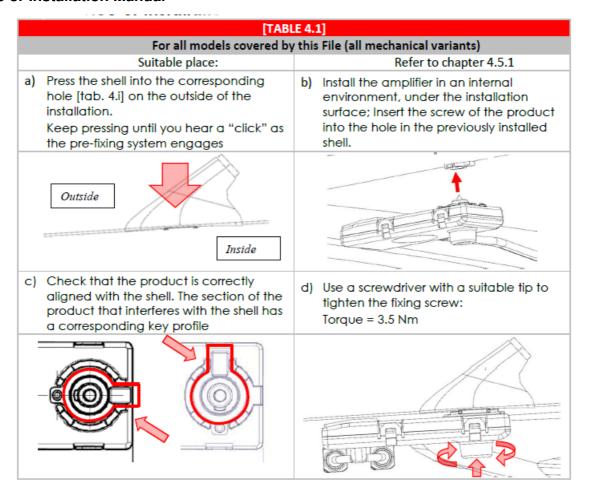
	Mechanical	Reception bar	nds			
ASK P/N	/electronic va riant	Connector F akra	Function	Connecto r	Function	Power supply ra
	VAR_M1.1	White	AM/FM			8.5 V – 16.0V (on the indicated connector)

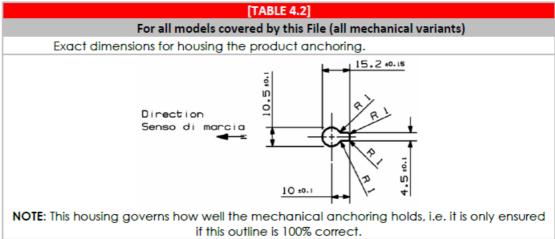
	VAR_E1	Grey	DAB	8.5 V – 16.0V (on the indicated connector)
	VAR_M1.1	White	AM/FM	8.5 V – 16.0V (on the indicated connector)
83847600	VAR_E1	Grey	DAB	8.5 V – 16.0V (on the indicated connector)
	VAR_M1.2	White	AM/FM	8.5 V – 16.0V (on the indicated connector)
83852700	VAR_E1	Grey	DAB	8.5 V – 16.0V (on the indicated connector)
	VAR_M1.2	White	AM/FM	8.5 V – 16.0V (on the indicated connector)
83848500	VAR_E1	Grey	DAB	8.5 V – 16.0V (on the indicated connector)
	VAR_M1.2	White	AM/FM	8.5 V – 16.0V (on the indicated connector)
83859500	VAR_E1	Grey	DAB	8.5 V – 16.0V (on the indicated connector)
		1		-

	VAR_M1.2	White	AM/FM		8.5 V – 16.0V (on the indicated connector)
83862000	VAR_E1	Grey	DAB		8.5 V – 16.0V (on the indicated connector)
	VAR_M1.1	White	AM/FM		8.5 V – 16.0V (on the indicated connector)
83862700	VAR_E1	Grey	DAB		8.5 V – 16.0V (on the indicated connector)
	VAR_M1.2	White	AM/FM		8.5 V – 16.0V (on the indicated connector)
83863800	VAR_E1	Grey	DAB		8.5 V – 16.0V (on the indicated connector)

^(*) These PNs represent the reference for the other PN regarding the mechanical and electrical parts.

Service or Installation Manual





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Warnings about the installation environment

- The product is designed to be used in accordance with the installation rules shown in tables 4.1-4.2 for normal use.
- We recommend that the installation be carried out by qualified technical personnel using electrostatic discharge protection: anti-ESD.

- · We recommend anchoring it to a metal surface.
- We recommend that the product be installed away from sources that can generate strong electrical noise such as: Motors, power supplies, transformers, intermittent lights, actuators, digital control units, data cables, pulsed signal sources of various kinds.
- We recommend that the product be installed in an area that is free from lateral obstructions and with a direct line of sight to the sky.
- We recommend a distance of at least 1 m from lateral metal surfaces.
- If it is not possible to meet the listed recommendations, you may experience reduced performance of some of the functions of this product.
- Conversely, this product does not generate any known problems to the installation environment.
- However, we do not recommend leaving the product in operation when it is close to or touching the human body for continuous periods, even though there is no scientific evidence that this will affect human health.
- The product may be used and installed anywhere that the law allows the installation of radio equipment without any specific limitations.
- When installing in places that are subject to specific limitations, the installer is responsible for ensuring that the product can be used.
- The installer is wholly liable for positioning the product inappropriately or for failure to comply with specific regulations that impose restrictions or limitations on normal product use.
- The product shall be positioned out of the reach of children.

Operation Manual

- The product does not require a specific manual.
- For correct product operation, make sure that you:
 - Install it correctly in a suitable place (in accordance with [tab. 4.1] and [tab. 4.2], refer to the "use restrictions and warnings" section in chap. 5)
 - Connect it correctly to the demodulator equipment: radio tuner (not part of this product)
 - Provide the installed product with the correct power supply (in accordance with the electrical spec. in [tab 3])
 - Do not expose the product to direct flux from radio links. (radar, dishes, military zones subject to special radio regulations, etc.)

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User qualifications

- There are no specific restrictions on use of the product by unqualified personnel.
- However, we do not recommend leaving the product in operation when it is close to or touching the human body for continuous periods, even though there is no scientific evidence that this will affect human health.

Information and responsibility

- 1. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment
- The F6 family products, composed from 5802128245 137443008 5802105847 519901390 –5802423167
 52134159 5802707245 5801714113, FCC ID: 2AXHC-F6.
- 3. Compliance Information: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- 4. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CANADIAN REPRESENTATIVE LETTER OF ATTESTATION

Canadian Representative

• Company Name: Canadian Certification Consulting, Inc.

• ISED Company No.:10842A

Contact Name: Jon Hughes, Pres ident

• Street Address: 2210 Horizon Drive, Suite 17

• City/Province/Zip: West Kelowna, BC V1Z 3L4, Canada

Telephone No.:1-250-575-1719Facsimile No.:1-250-769-0045

• E-mail:i nfo@can-cert.com

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EU type certificate





Certificate No: 2051-RED-193601 File No: 379357

Notified Body 2051 - Radio Equipment Directive 2014/53/EU

EU-Type Examination Certificate

2051-RED-193601

In compliance with Directive (EU) No 2014/53 of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment (RED), this certificate applies to the product(s)

> Vehicle antenna amplifier and receiver Model: F6

Placed on the market under the name or trade mark of

Ask Industries S.p.A. Via dell'Industria 12/14/16 60037 - Monte San Vito (AN), Italy

This certificate attests that all provisions concerning the assessment and verification of performance described in the standard(s)

Art 3.1a: EN 62368-1:2014

Art 3.1b: ETSI EN 301 489-1 V2.2.0:2017

ETSI EN 301 489-3 V2.1.1:2017

Art 3.2: ETSI EN 303 345 V1.1.7:2017

as per Annex III (Module B) for the performance set out in this certificate, are applied.

Certificate issued September 09, 2019 Certificate was first issued March 21, 2019 (n. 2051-RED-191201)

Carco Dodypelis Da

Firmato digitalmente da DE ANGELIS MARCO Data: 2019.09.09 11:05:06 +02'00'

Certificate Revision: 0

Nemko S.p.A.

Authorized signatory: Marco De Angelis

NB 2051





Certificate No: 2051-RED-193601 File No: 379357

ANNEX 2 - SCHEDULE OF APPROVAL

SCOPE OF EXAMINATION

COMPLIES Protection of Health and Safety, according to Article 3(1)(a). Electromagnetic Compatibility (EMC), according to Article 3(1)(b). COMPLIES COMPLIES Radio Spectrum Use, according to Article 3(2). N/A Special Radio Features, according to Article 3(3)(a)-(i).

APPLICATIONS/LIMITATIONS

Nil

MARKING OF PRODUCT

The Manufacturer and Type Designation shall be applied to the product in a visible location. The equipment shall carry the CE marking of the European Union.

TYPE EXAMINATION DOCUMENTATION

Test report(s)

- Safety test report by Nemko SpA (id: 330318TRFSAF, dated: 2017-06-08)
- EMC test report by Reggio Emilia Innovazione S.C.a.r.l. (id: 2017-00238, dated: 2017-06-13)
- Radio test report by Reggio Emilia Innovazione S.C.a.r.I. (id: 2017-00238, dated: 2017-06-13)

Additional documentation

RED technical file by Ask Industries S.p.A. (id: 17/17 rev.04, dated 2019-07-22)

ADDITIONAL INFORMATION

None.

da DE ANGELIS MARCO Data: 2019.09.09

11:06:19 +02'00'

Firmato digitalmente

Certificate Revision: 0

Nemko S.p.A.

Authorized signatory: Marco De Angelis

NB 2051

Nemko Italy

Nemito Spa a Socio Unico, Via del Carroccio 4, 20853 Blassono (MB) TEL +39 039 220 12 01 FAX +39 039 220 12 21 EMAIL segreteria@nemko.com COD.FISC./P.IVA IT02540280969 CAP.SOC. € 895.960,00 I.v. ISCR.R.I. MB 02540280969 Doc.: C121_NB-RED REV. 3 (03 January 2018)

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 ☑ Radio Spectrum Use, according to Article 3(2).
 ☑ Special Radio Features, according to Article 3(3)(a)-(i).

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Nil.

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Additional documentation

RED technical file by Ask Industries S.p.A. (id: 17/17 rev.04, dated 2019-07-22)

ADDITIONAL INFORMATION

None.

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COD.FISC.JP.IVA IT02540280969 CAP.SOC. € 895.960,00 I.v. ISCR.R.I. MB 02540280969
DOC.: C121 NB-RED REV. 3 003 January 2018)

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Cortificate No: 2001-RED-193601 File No: 379357

ANNEX 3 - VARIANTS

[TABELLA 1.e]									
ASK P/N	Codice Funzione presente nel prodotto								
ASK P/N	secondario	AM	FM	DAB	Tel.	Nev	FFB	TV	Note
83852800	5802128245	L1	l1	w					Rif
83847600	137443008	1.1	11	w					Var
83852700	5802105847	LL	11	w					Var
83848500	519901390	1.1	11	w					Var
83859500	5802423167	Ll	11	w					Var
83962000	52134159	LL	11	W					Var
83862700	5802707245	1.1	11	w					Var
83863800	5801714113	LL	11	w					Var

ASK/PN: Ask production code

Codice secondario (afformative code): alternative production code indicated on the product label

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Certificate Revision: 0

Memiko fizaly Nemiko Rps a Socio Unico, Via del Camoccio d. 20042 Biastono (MR) TEL -436 039 320 10 01 FAX +39 039 320 12 21 FMAIL pagreteria@nemico.com OCD_FIGO_PIVA_RESHESSESSES CAP-800 -4 BSC.963,80 (w. 160R.P.L. MD 82548288862 DOC: G121_M6-RED NEY. 3 035 January 2018)

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Certificate No: 2051-RED-193601 File No: 379357

ANNEX 4 - FREQUENCY RANGES

Frequency bands implemented according to Table 1.a in Annex 3:

					LLA 1.b]		
	_			ssificazione Bande	operative di	prodotto	
Funzione	fur	Classe zionan onne alte	mento	Soffogruppo	Inz. Freq [MHz]	Fine Freq. [MHz]	Note
***	147			LW	0.155	0.522	
AM	W	LI		MW	0.522	1.71	
FM	w	LI		EU	87	108	
F/VI	vv	L2		Jap	76	95	
DAB	147	LI		Banda III	174	240	
DAB	W			Banda L	1452	1492	

<< End of certificate >>

da Da

Firmato digitalmente da DE ANGELIS MARCO Data: 2019.09.09

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Certificate Revision: 0

Nemko S.p.A.

Authorized signatory: Marco De Angelis

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Doc.: 0121 NB-RED REV. 3 (03 January 2018)

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Declaration of Conformity

We manufacturer

Company name:	ASK Industries S.p.A.	
Postal address:	Via dell'Industria n.12/14/16	
Postcode and City:	60037 Monte San Vito (AN)	
Telephone number:	+39-071-74521	
E-mail address:	WebContact.CEMark-Antennas@askgroup.it	

Represented by signatory, declare under our sole responsibility that the following products:

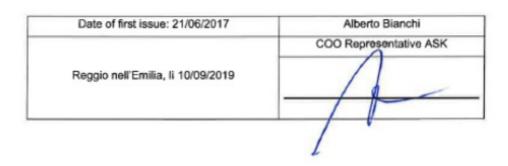
Apparatus:	F6	
Type:	Receiving antenna amplifier: AM, FM, DAB.	
Model:	5802128245	
Variants:	137443008 5802105847 519901390 5802423167 52134159 5802707245 5801714113	

is in conformity with the regulations of European Directive: 2014/53/EU of Radio Equipment's.

Laboratory:	3.1.a : Laboratori Nem	nko S.p.A.	3.1b/3.2 : REInnova Laboratori		
Notified Body:	Nemko S.p.A. (NB 20	51)			
	art. 3.2 "Radio"	ETSI EN 303 345 V1.1.7:2017			
Standards or normative documents:	art. 3.1b "EMC"	ETSI EN 301 489-1 V2.2.0:2017 ETSI EN 301 489-3 V2.1.1:2017			
	art. 3.1a "Safety"	EN 623	368-1:2014		

The Notified Body Nemko S.p.A. has performed the conformity assessment of the technical documentation according to the procedure set out in Annex III (module B) of Directive 2014/53/EU and it has issued the:

EU-Type Examination Certificate n. 2051-RED-193601



Subject to the direction and coordination of JVCKENWOOD Corporation ASK Industries S.p.A. single shareholder company Other offices (registered office and secondary administrative HQ) Contact Legal codes Reggiane - Parco Innovazione Via dell'industria n. 12/14/16 R.E.A. of Ancone n. Capannone 18 R.J. di Ancona -Fiscal Code;: 00091200428 60037 Monte San Vito (AN) Viale Ramazzini sno VAT Code: IT 00091200428 Italia Internet: www.askgroup.it 42124 Reggio Emilia - Italia Paid in Capital Euro 581,017,50 Tel +39 071 74521 Tel: +39 0522 500900 Telefax: +39 071 7452400 Telefax: +39 0522 1820143

Documents / Resources



ASK F6 Amplifier [pdf] User Manual F6, 2AXHC-F6, 2AXHCF6, F6 Amplifier, F6, Amplifier

Manuals+,