endrichnews

OUR PRODUCT OF THE MONTH:
AD4028 HIGH AIRFLOW AND HEAT DISSIPATION

FEATURES

- 30000 RPM
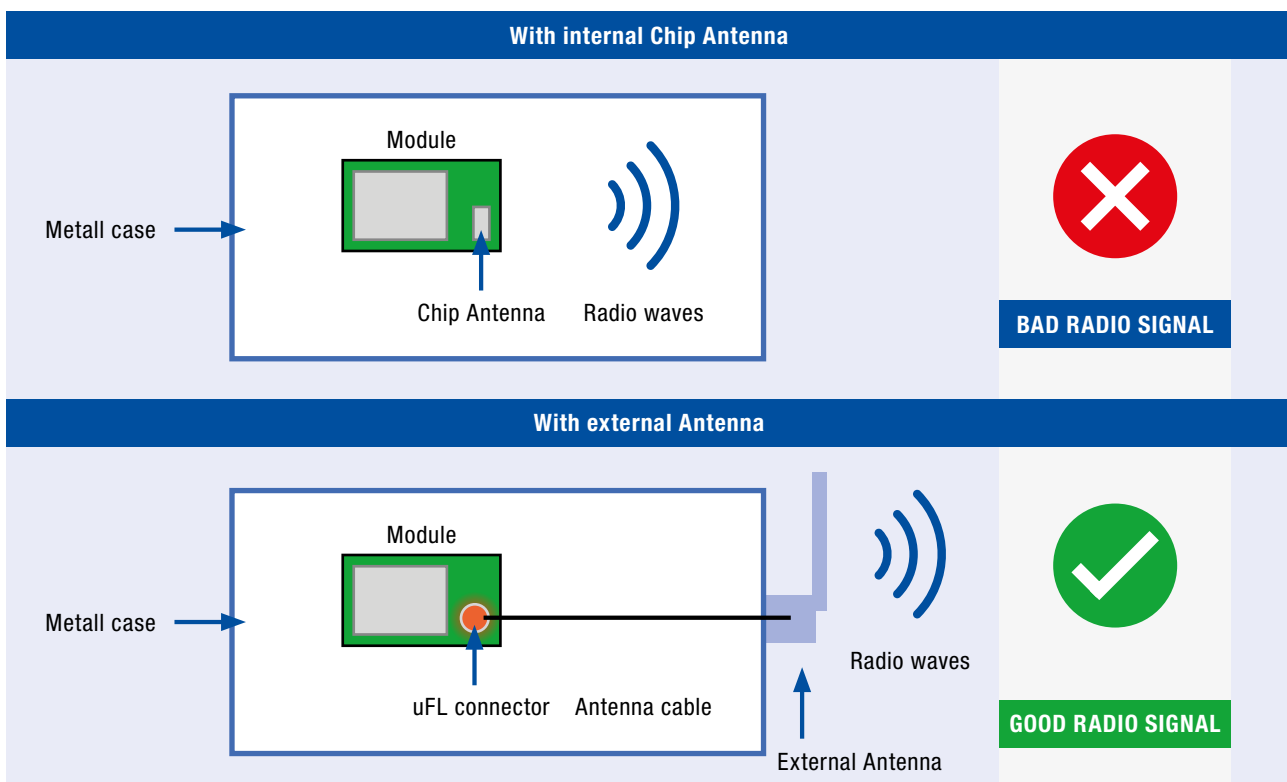- Air flow increase 160 %
- Pressure increase 290 %

APPLICATIONS

- Electric vehicle charging stations
- Industry 4.0
- Solar panels
- Energy storage equipment and refrigeration equipment

PAN1770 – THE PERFECT ADDITION TO THE PANASONIC BLUETOOTH PORTFOLIO

With great pleasure Panasonic announced the latest update to their portfolio – The PAN1770 Module with U.FL connector for external antennas.

Based on the Nordic nRF52840 it is the perfect addition to PAN1780 providing the first Panasonic Bluetooth module without integrated antenna. This provides the freedom to choose between PAN1780 with integrated chip antenna and the PAN1770 with U.FL connector.

This module supports Bluetooth 5.1, Thread and Zigbee. In order to be future proof, the support of Matter protocol is planned. CE RED, FCC, ISED and Wirepas certified, the module can be easily integrated for most regions. Further certifications are pending.

Why and when do you need an external antenna?
In many devices or applications, the radio waves emitted by the chip antenna can be blocked or reflected by the metallic housing or surrounding. This makes it difficult to receive the radio signal from the outside.

This circumstance can be counteracted if the external antenna is mounted outside the housing. The PAN1770 makes it possible to easily attach an external antenna by cable through the U.FL connector and thus redirect the radio waves outside the housing.

PAN1770 – THE PERFECT ADDITION TO THE PANASONIC BLUETOOTH PORTFOLIO

Panasonic Wireless Connectivity Development Hub

Get all the technical information on evaluation and development with our wireless modules here:

https://pideu.panasonic.de/development-hub/

Contents of the Wireless Connectivity Development Hub:

- User manuals for all evaluation tools
- Downloadable schematics of the Evaluation Boards (EVBs) as reference design
- Quick start guides for software evaluation

HAVE A LOOK

HAVE A LOOK

PAN1780 and PAN1770

Technical Specifications

PAN1780	PAN1770
Mass Production	Mass Production
ENW89854A1KF ENW89854A3KF (PAN1780AT)	ENW89854C1KF (Standard) ENW89854C2KF (APPROTECT)
Bluetooth® 5.1, IEEE® 802.15A & NFC-A	**Bluetooth® 5.1, IEEE® 802.15.4 & NFC-A**
nRF5 SDK by Nordic nAF Connect SDK	nRF5 SOK by Nordic nRF Connect SDK
nRF52840	nRF52840
15.6 x 8.7 x 20	15.6 x 87 x 20
-95 @ 1 Mb/s -103 @ 125 kb/s	-95 @ 1 Mb/s -103 @ 125 kbls
+8	+8
1.7 to 5.5	1.7 to 5.5
Tx: 4.8 mA, 3.3 V @ 0 dBm Rx: 4.8 mA, 3.3 V	Tx: 4.8 mA, 3.3 V @ 0 dBm Rx: 4.8 mA, 3.3 V
Wake-on-RTC: 1.5 µA Off Mode: 0.4 µA	Wake-on-RTC: 1.5 µA Off Mode: 0.4 µA
GPIO, UART, QSPJ, I2C, I2S, ADC, PDM, PWM, NFC-A, USB2.0	GPIO, UART, OSPI, 12C, 12S, AOC, POM, PWM, NFC-A, USB2.0
ARM• Cortex• -M4F 256 kB RAM, 1 MB Flash	ARM• Cortex• -M4F 256 kB RAM, 1 MB Flash
-40 to +85	-40 to +85
ENW89854AUKF (Board) ENW89854AVKF (AT Board)	ENW89854CXKF (Standard) ENW89854CZKF (APPROTECT)

FEATURES

- Bluetooth 5.1
- IEEE® 802.15.4 (Thread, Zigbee)
- NFC-A
- ARM® Cortex®-M4F
- ARM Trustzone Cryptocell
- 2Mbps
- Up to 48 GPIOs
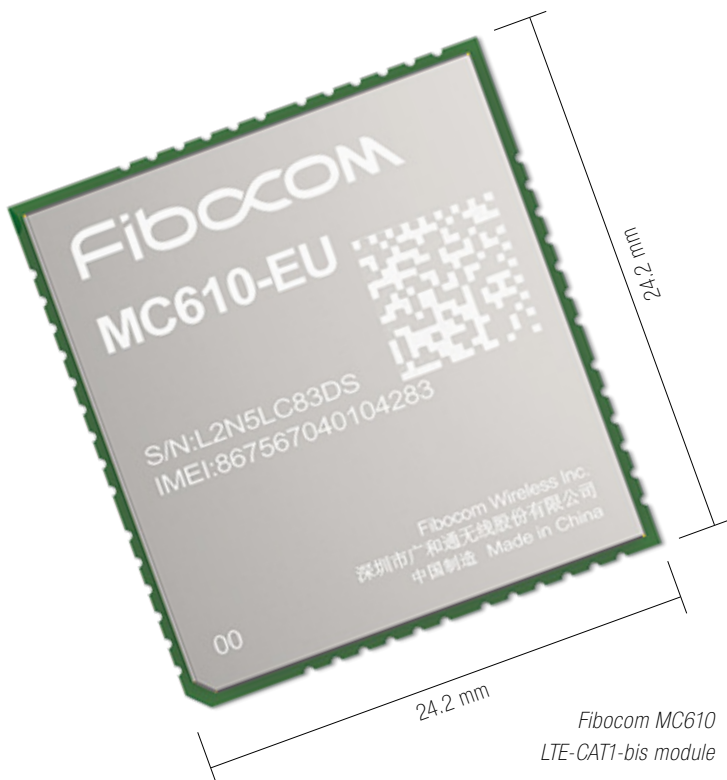- Low Power Modules
- Options between internal and external antenna

APPLICATIONS

- Smart Home
- Smart City
- Smart Factory
- Elderly Care
- Horticulture

FIBOCOM MC610 LTE-CAT1-BIS MODULE

The Fibocom MC610 LTE-CAT1-bis module is designed to provide stable and secure connectivity for the low and medium rate IoT market.

24.2 mm

24.2 mm

*Fibocom MC610
LTE-CAT1-bis module*

With its low power consumption and medium data rate technology the module is ideal for IoT scenarios such as smart payment, sharing economy, IIoT, asset tracking and telematics. The main feature of LTE-CAT1-bis is the usage of only one antenna compared to two antennas for regular LTE-CAT1 while still remaining high data rates of up to 10 Mbps downlink and 5 Mbps uplink. Drivers are ready for Android, Linux and Windows. The MC610 is the second LTE-CAT1-bis module from Fibocom after the L610 being now smaller and additionally the pin layout is downwards compatible with MA510 module. Meaning in case of a switch to technologies LTE-M/NB-IoT is possible without change in the hardware layout.

A key benefit of LTE-Cat1-bis is it does not require software and hardware upgrades for the base stations, providing a seamless integration in existing LTE CAT1 networks on MNO side. On user side also 2G/3G frequency bands are being supported to provide best coverage of 2G, 3G and 4G Network. Especially for regions where LTE-M/NB-IoT are not covered or 2G/3G are not available in the future the MC610 is a great solution for an alternative module design.

FEATURES

- VoLTE (Voice over LTE)
- Audio/Recording/SMS
- NITZ/NTP/SSL
- USB/UART/SPI/I2C
- 10 Mbps DL / 5 Mbps UL
- 3.8 V operating voltage (typical)
- 24.2 x 26.2 x 2.1 mm

APPLICATIONS

- Retail
- Asset Tracking
- Smart Building
- Smart Factory
- Energy Management
- Horticulture

ACOUSTIC AND HAPTIC FEEDBACK FOR E-CHARGING STATION

The growing need for public E-Charging Stations and private Wall Boxes is also fueling the demand for greater ease of use.
Users often require more comfort in the form of acoustic and haptic status messages or haptic feedback.

From acoustics side we can support all company with:

- Sound generators for simple but strong acoustic feedback
- Vibration motors for haptic feedback, for example within the plug-in connector
- Loudspeakers for acoustic feedback like melodies or even speech (in case of combination together with a help and payment tower)
- Microphones in case of high solution e-charging station were it needs to be communicated with an operator
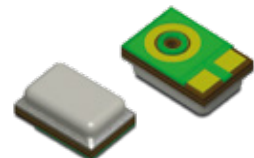
CSPT12A03

BLT-4315B

32KUG08XNT-W

F1-(A)MOE-N090R38-3P

FEATURES

- Full range loudspeaker with a wide, flat and balanced frequency response
- Superior reliability for high temperature
- Excellent signal to noise ratio
- Significant RF noise reduction
- High sensitivity & extremely low distortion at high input level maintain high SNR and low distortion after signal processing
- Smaller size with higher power and high sensitivity
- Customized sound box on request
- Wide range of sizes available

APPLICATIONS

- Smart Home / Building / City
- Industry 4.0 / 5.0
- Automotive

Are you interested? We would be happy to welcome you on our Electronica 2022 show booth.

AD4028 HIGH AIRFLOW AND HEAT DISSIPATION

ADDA has supplemented its high airflow and heat dissipation 40 x 40 mm axial fans with additional model series. The AD series are also available in other configurations. In addition to the other configurations, it's possible to complete with IP68 rating. The optimized design of the new stators significantly boosts the motor operating efficiency for a compact to supply adequate airflow and to a speed about 30.000 RPM. In comparison with normal type from ADDA the air flow increased 160 % and the pressure 290 %.

Specifications (Nominal)

SIZE	MODEL NO. (00NS)	RATED VOL-TAGE (VDC)	CUR-RENT (A)	POWER (W)	RATED SPEDD (rpm)	MAXIMUM AIRFLOW		MAXIMUM PRESSURE		NOISE LEVEL (dB/A)	WEIGHT (g)
						(CMM)	(CFM)	(InAq)	(mmAq)		
40 x 40 x 28 mm	AD04012DB285B02	12	0.10	1.20	8000	0.246	8.7100	0.410	10.414	30.0	55.0
	AD04012LB285B02	12	0.20	2.40	12000	0.368	13.000	0.880	22.352	41.0	
	AD04012MB285B02	12	0.26	3.12	14500	0.450	15.900	1.340	34.036	47.2	
	AD04012HB285B02	12	0.44	5.28	17000	0.583	19.000	1.790	45.466	51.0	
	AD04012UB285B02	12	0.51	6.12	18500	0.583	20.600	1.990	50.546	53.3	
	AD04012XB285B02	12	0.90	10.80	22500	0.698	24.650	3.050	77.470	59.4	
	AD04012VB285B02	12	1.32	15.84	26500	0.835	29.500	4.134	105.004	64.0	
	AD04012EB285B02	12	2.00	24.00	30000	0.948	33.500	5.300	134.620	66.0	
	AD04024LB285B02	24	0.10	2.40	12000	0.368	13.000	0.880	22.352	41.0	
	AD04024MB285B02	24	0.18	4.32	14500	0.450	15.900	1.340	34.036	47.2	
	AD04024HB285B02	24	0.20	4.80	17000	0.538	19.000	1.790	45.466	51.0	
	AD04024UB285B02	24	0.25	6.00	18500	0.583	20.600	1.990	50.546	53.3	

FEATURES

- 30000 RPM
- Air flow increase 160 %
- Pressure increase 290 %

APPLICATIONS

- Electric vehicle charging stations
- Industry 4.0
- Solar panels
- Energy storage equipment and refrigeration equipment

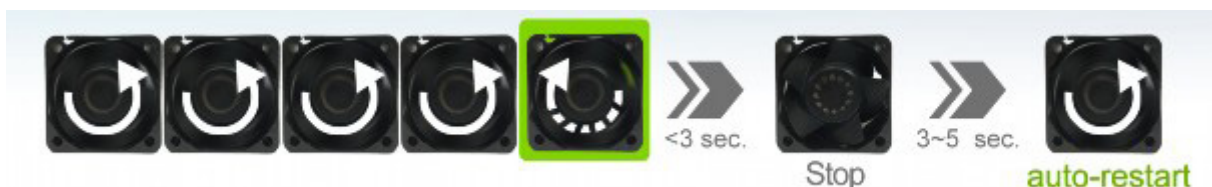## AS4028 HIGH STATIC PRESSURE AND HEAT RELIEF

ADDA has supplemented its high static pressure and heat relief 40 x 40 mm axial fans with additional model series. The AD series are also available in other configurations. The optimized design preventing counterclockwise rotation. In comparison with normal type from ADDA the air flow increased 170 % and the pressure 300 %.

Specifications (Nominal)

SIZE	MODEL NO. (00NS)	RATED VOL-TAGE (VDC)	CUR-RENT (A)	POWER (W)	RATED SPEDD (rpm)	MAXIMUM AIRFLOW		MAXIMUM PRESSURE		NOISE LEVEL (dB/A)	WEIGHT (g)
						(CMM)	(CFM)	(InAq)	(mmAq)		
40 x 40 x 28 mm	AS04012DB285B02	12	0.25	3.00	15000	0.457	16.150	1.480	37.592	49.7	50.0
	AS04012LB285B02	12	0.42	5.04	18500	0.568	20.050	2.170	55.118	55.4	
	AS04012MB285B02	12	0.68	8.16	22500	0.685	24.200	3.210	81.534	59.8	
	AS04012HB285B02	12	1.10	13.20	26500	0.814	28.740	4.090	103.886	62.8	
	AS04012UB285B02	12	1.70	20.40	30000	0.903	31.900	5.290	134.366	64.5	
	AS04012VB285B02	12	2.60	31.20	36000	1.093	38.600	8.990	228.346	70.5	

FEATURES

- 35.000 RPM
- Preventing counterclockwise rotation
- Air flow increase 170 %
- Pressure increase 300 %

APPLICATIONS

- Heat relief of high static pressure environments
- Various industries or home appliances

Besuchen Sie uns vom 15. – 18. November 2022 in München auf der electronica, der wichtigsten Elektronikmesse der Welt.
Stand: 301 in Halle: C3

15-18. November 2022

**Wir sind auf der electronica.
Sehen wir uns?**

Vom 15. - 18. November 2022 findet die electronica, die wichtigste Elektronikmesse der Welt, in München statt – und wir sind selbstverständlich mit dabei.

Hierzu laden wir Sie ganz herzlich ein, uns auf unserem Stand in **Halle C3, Stand 301** zu besuchen. Unsere Mitarbeiter freuen sich darauf, Ihnen unsere aktuellen Anwendungs- und Produkt-Highlights sowie kundenspezifische Produkte und komplette Systemlösungen vorzustellen. Für Sie ist dies auch eine Möglichkeit, direkt mit unseren Lieferanten zu sprechen.

Wir freuen uns auf angeregte Gespräche – und wie Sie es von endrich gewohnt sind, ist für das leibliche Wohl bestens gesorgt.

Wir sehen uns auf der electronica!
Ihr Endrich Team

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