

ABSTRACT

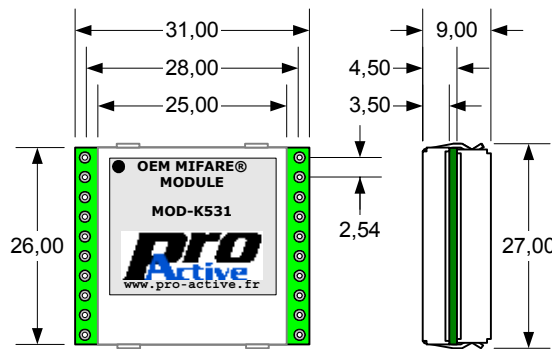
Pro-Active MOD-K531 is an ISO 14443 contactless reader module :

- Read and write access to MIFARE® cards,
- Suitable for use with DESFIRE® cards as well as with other ISO 14443-A T=CL products,
- Philips MF RC531 chipset,
- Serial interface allowing connection to any controller device or embedded computer,
- Same API as Pro-Active SpringProx and CSB products, available in ANSI C through a full-featured starter kit.



The module needs an external antenna to operate. The antenna has to be designed depending on your own application (max. size, required operating distance).

Pro-Active also offers a basic antenna suitable for most uses. Please feel free to contact use for specific requirements.



dimensions in mm

SAMPLE APPLICATIONS

- Ticketing, transportation,
- Tracking, loyalty,
- Private money payment, road toll pricing,
- Physical access control
- ...

Upon request, a dedicated firmware may be developed for the MOD-K531, giving highest performances to your specific application.

ORDER CODES

Pro-Active MOD-K531 OEM module :

- MOD-K531

Pro-Active MOD-K531 starter kit :

- SRK-K531

See related datasheets for products featuring the MOD-K531 OEM module + RS232, RS422 or USB interface + antenna.

TECHNICAL DATA

Description	ISO14443-A OEM Reader module.
Order code	MOD-K531
Size	26x30,5x9,6mm without antenna
Weight	14g without antenna
Temperature range	-20°C → +80°C
Power supply	5V DC
Power consumption	90mA typ. (depending on antenna and power mode)
Serial interface	RX/TX, CMOS-TTL (0/+5V), 38400 or 115200 bps (8 bits, 1 stop, no parity, no flow control)

TTL-CMOS I/Os	Green & red LEDs (soft. controlled) Bi-directional USER pin (soft. controlled) Module enable / Module reset pins
Other I/Os	both RC531 MFOUT & MFIN pins for specific hardware development
Supported tag	MIFARE® Standard / UltraLight (native), MIFARE® DESFire (soft. API), ISO14443-A tags (soft. T=CL API),
Operating distance	up to 80mm (depending both on the tag and on the antenna design and size)
Starter kit contents	MOD-K531 + SpringProx API (ANSI C) + sample software + 3 months e-mail support

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VAT#. FR27 429 665 482 00015

MOD-K531 : ISO14443 OEM Reader Module

pf12010-af.doc
26/03/2004
Version : AF

PIN DESCRIPTION

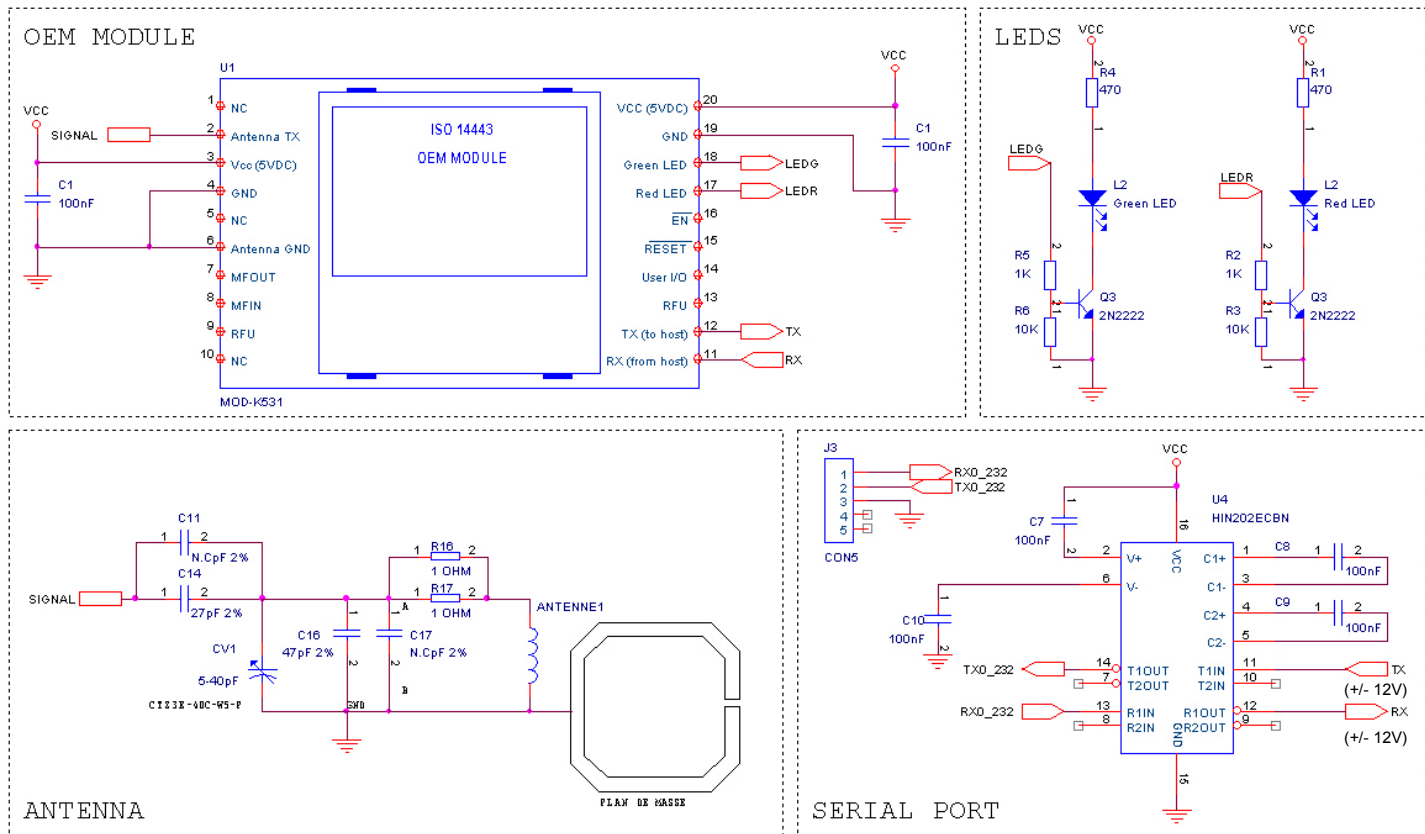
NC : 1		OEM MIFARE® MODULE		20 : Vcc (5V DC)
Antenna TX : 2				19 : Gnd
Vcc (5V DC) : 3				18 : Green LED
Gnd : 4				17 : Red LED
NC : 5				16 : /EN
Antenna Gnd : 6				15 : /RESET
MFOUT : 7				14 : User I/O
MFIN : 8				13 : RFU
RFU : 9				12 : TX (to host) (0/+5V)
DO NOT USE : 10 (flash operation only)				11 : RX (from host) (0/+5V)

Important notice :

Please follow the application note below for the antenna reference design. The antenna is to be wired to pins, 1, 3, 5 and 6 according to Philips' application note "Directly Matched Antenna Design" available on their web site.

All logical pins at TTL/CMOS (0/+5V) (LEDs, User I/O, RX & TX) must be protected according to the application note below.

APPLICATION NOTE



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DATASHEET

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