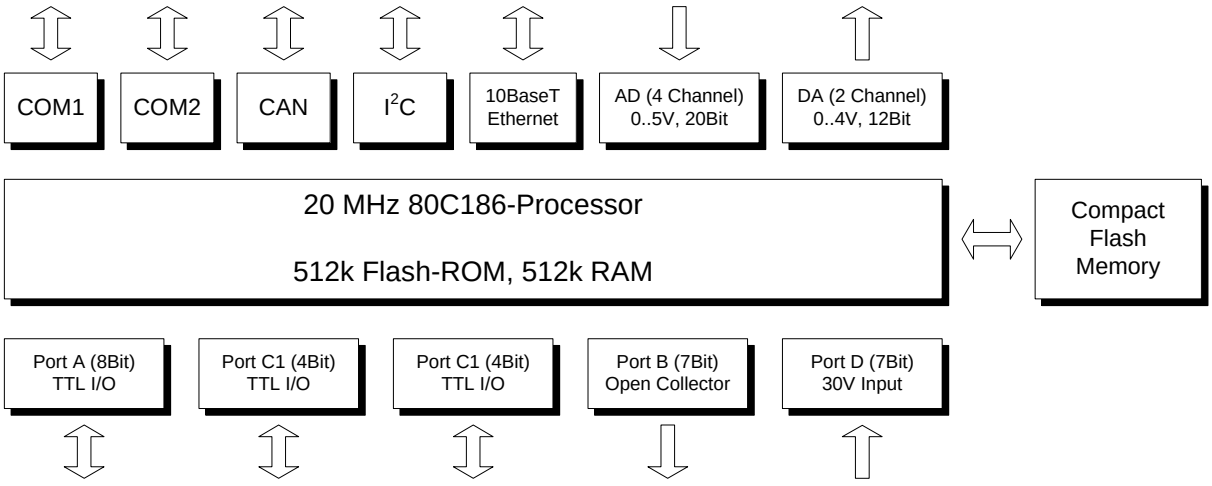
ROFA SOFTWARE

LANBOX

Version 1.00

- 20MHz 80C186 Processor
- 512 k Flash-ROM, 512k RAM
- Compact Flash Memory
- 10BaseT Ethernet-Interface
- 2 COM Ports
- 1 MBit CAN-Bus with FIFO
- I^2C Bus
- 16 TTL I/O-Ports
- 7 Open Collector Output Ports
- 7 30V Input Ports
- 4 Channel 20 Bit ADC
- 2 Channel 12 Bit DAC
- Embedded Webserver, FTP, Telnet, CGI and WAP
- Real Time Operating System
- Optional external graphic display with integrated touch panel



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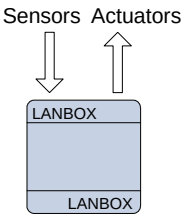
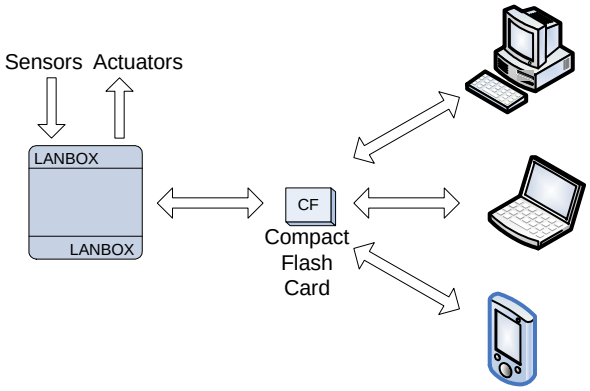
Applications

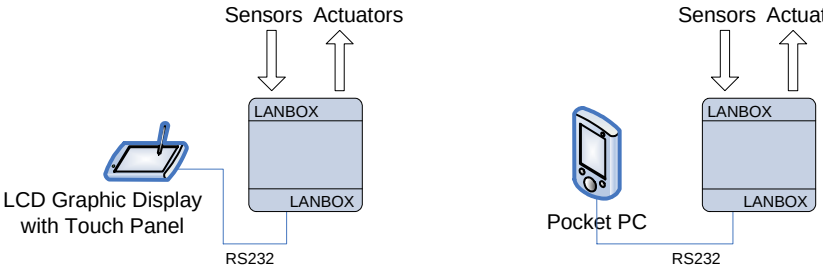
- The LANBOX can be used as a standalone device for control applications (e.g. temperature or pressure control). Because of its open architecture any type of controller (e.g. PID) can be implemented.



- If no network connection is available, the Compact Flash Card can be used to transfer large amounts of data to and from the LANBOX very easily.



- For applications which need a user interface for data input and output, a LCD graphic display with integrated touch panel or a Pocket PC, dependent on the resolution and colour requirements, can be connected to the LANBOX.



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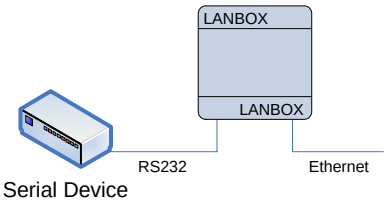
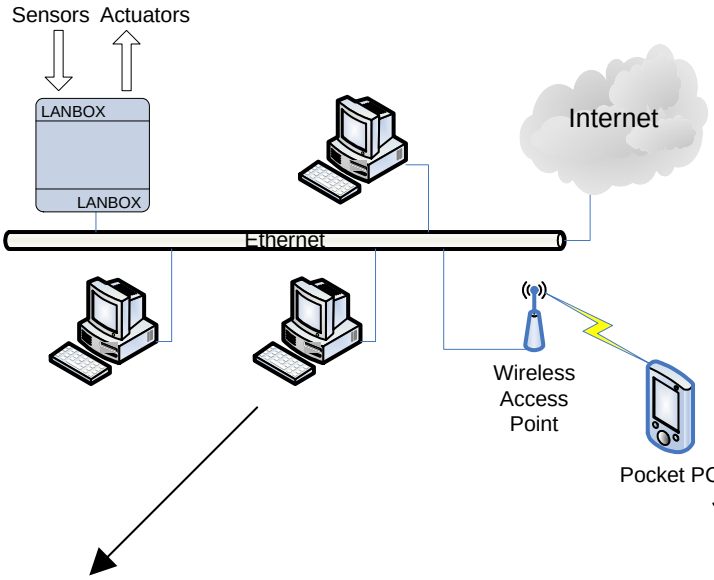
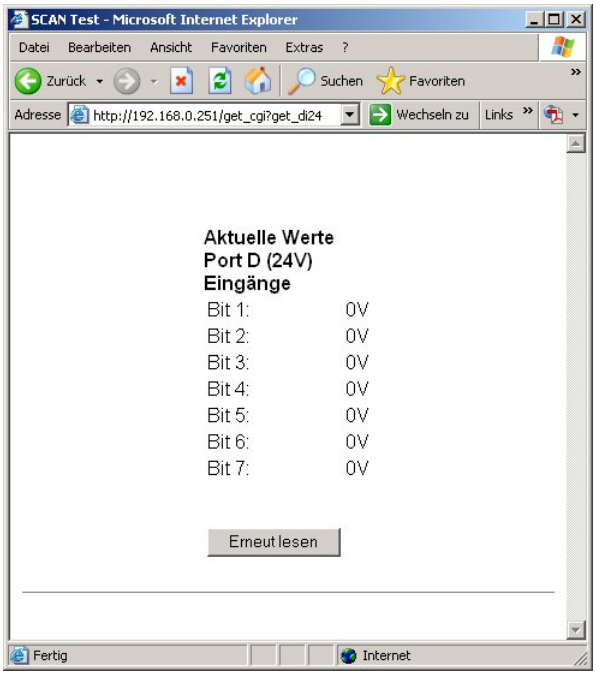
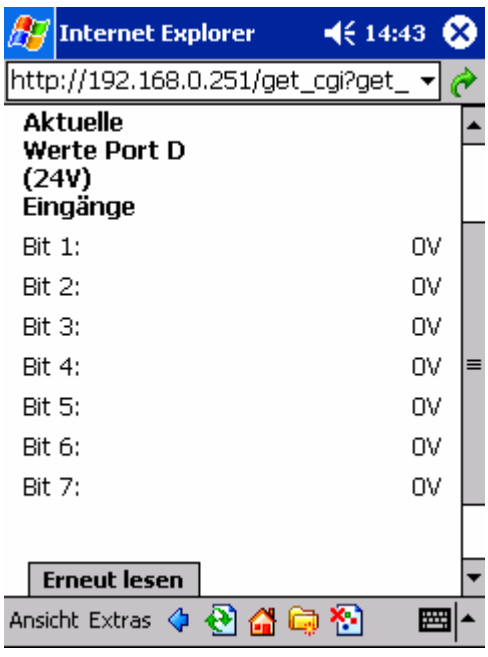
- The LANBOX can be used to connect serial devices (analyzers, balances,…) to a LAN or the Internet and translate the data stream to standard protocols like Modbus over TCP



- One of the most powerful features of the LANBOX is the integrated Webserver. If the LANBOX is connected to a LAN and/or the Internet, every computer that has access to this network can control the LANBOX via a web browser.







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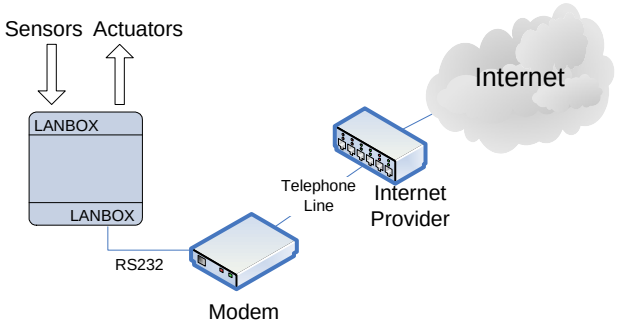
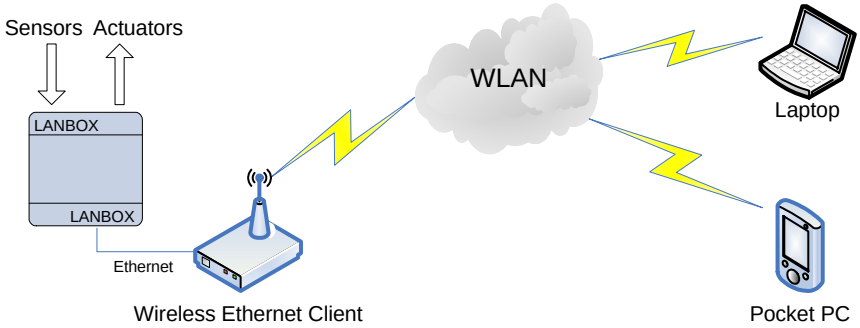
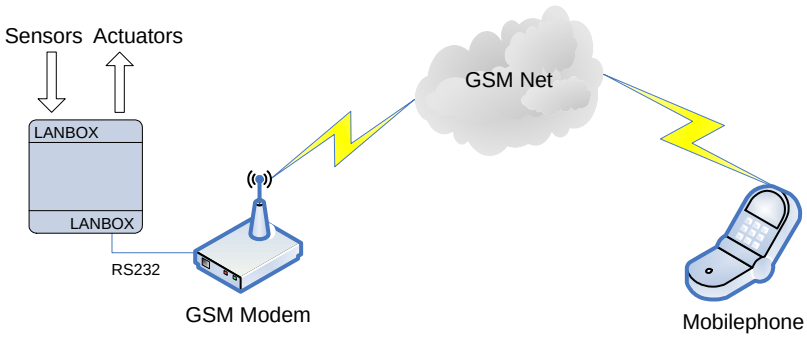
- At locations where no direct Internet connection is available, a modem can be used



- At locations where cabling is a problem, a Wireless Ethernet Client can be used to connect the LANBOX to a wireless network.



- For applications where a operator must be informed about alarm states immediately, the LANBOX can send a SMS or email via a GSM modem to a mobile phone.



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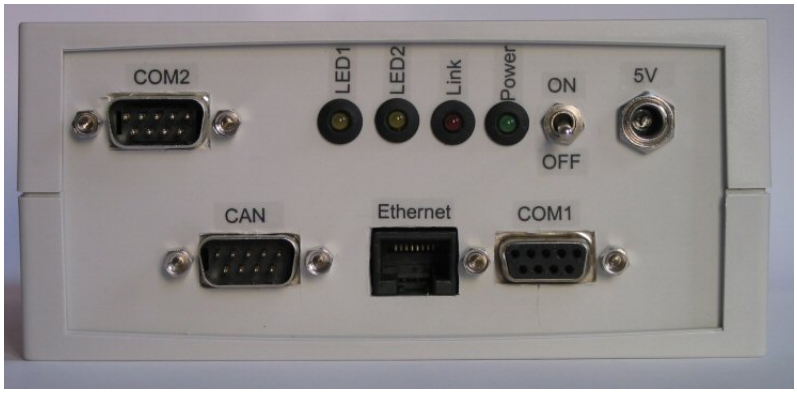
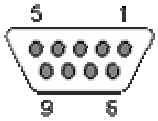
Connectors

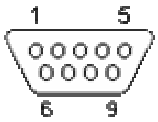


COM1 (RS232C, DCE, Sub-D 9pin female)



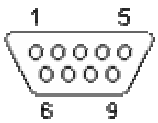
PIN	I/O	NAME	DESCRIPTION
1	Out	--	Always Low (+8V)
2	Out	RxD	Max. 115 kBaud
3	In	TxD	Max. 115 kBaud
4	In	DTR	
5	--	GND	
6	Out	DSR	Always Low (+8V)
7	In	RTS	Max. 115 kBaud
8	Out	CTS	Max. 115 kBaud
9	Out	RI	Always High (-8V)

COM2 (RS232C, DTE, Sub-D 9pin male)



PIN	I/O	NAME	DESCRIPTION
1	--	NC	
2	Out	RxD	Max. 115 kBaud
3	In	TxD	Max. 115 kBaud
4	--	NC	
5	--	GND	
6	--	NC	
7	In	RTS	Max. 115 kBaud
8	Out	CTS	Max. 115 kBaud
9	--	NC	

CAN (Sub-D 9pin male)



PIN	I/O	NAME	DESCRIPTION
1	--	NC	
2	I/O	CANL	

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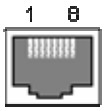
3	--	NC	Max. 1MBit/s
4	--	NC	
5	--	GND	
6	--	NC	
7	I/O	CANH	Max. 1MBit/s
8	--	NC	
9	--	NC	

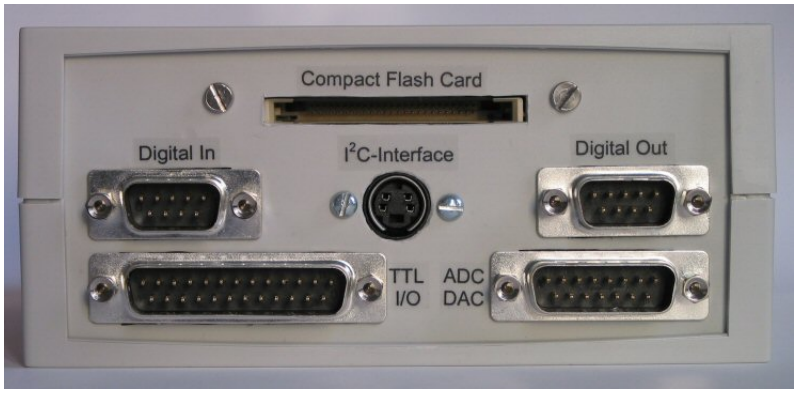
Ethernet 10BaseT (RJ45)



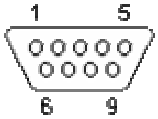
PIN	I/O	NAME	DESCRIPTION
1	Out	Tx+	10BaseT Transmit, max. 100m
2	Out	Tx-	10BaseT Transmit, max. 100m
3	In	Rx+	10BaseT Receive, max. 100m
4	--	NC	
5	--	NC	
6	In	Rx-	10BaseT Receive, max. 100m
7	--	NC	
8	--	NC	

Power 5V

PIN	I/O	NAME	DESCRIPTION
1	In	Supply +	5V
2	In	Supply -	0V (GND)



Digitial In (Sub-D 9pin male)



PIN	I/O	NAME	DESCRIPTION
1	--	GND	
2	In	D.5	V_{max}=30V, Port D
3	In	D.3	V_{max}=30V, Port D
4	In	D.1	V_{max}=30V, Port D
5	--	+5V	
6	In	D.6	V_{max}=30V, Port D

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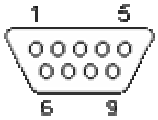
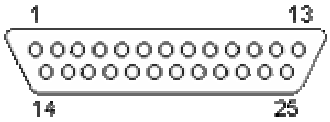
7	In	D.4	V_{max}=30V, Port D
8	In	D.2	V_{max}=30V, Port D
9	In	D.0	V_{max}=30V, Port D

Digitial Out (Sub-D 9pin male)



PIN	I/O	NAME	DESCRIPTION
1	--	GND	
2	Out	B.1	I_{max}=200mA, Open Collector, Port B
3	Out	B.3	I_{max}=200mA, Open Collector, Port B
4	Out	B.5	I_{max}=200mA, Open Collector, Port B
5	--	+5V	
6	Out	B.0	I_{max}=200mA, Open Collector, Port B
7	Out	B.2	I_{max}=200mA, Open Collector, Port B
8	Out	B.4	I_{max}=200mA, Open Collector, Port B
9	Out	B.6	I_{max}=200mA, Open Collector, Port B

TTL I/O (Sub-D 25pin male)



PIN	I/O	NAME	DESCRIPTION
1	--	GND	
2	I/O	A.0	TTL I/O, Port A
3	I/O	A.2	TTL I/O, Port A
4	I/O	A.4	TTL I/O, Port A
5	I/O	A.6	TTL I/O, Port A
6	I/O	C.0	TTL I/O, Port C
7	I/O	C.2	TTL I/O, Port C
8	I/O	C.4	TTL I/O, Port C
9	I/O	C.6	TTL I/O, Port C
10	--	NC	
11	--	NC	
12	--	NC	
13	--	+5V	
14	I/O	A.1	TTL I/O, Port A
15	I/O	A.3	TTL I/O, Port A
16	I/O	A.5	TTL I/O, Port A
17	I/O	A.7	TTL I/O, Port A
18	I/O	C.1	TTL I/O, Port C
19	I/O	C.3	TTL I/O, Port C
20	I/O	C.5	TTL I/O, Port C
21	I/O	C.7	TTL I/O, Port C
22	--	NC	
23	--	NC	
24	--	NC	
25	--	NC	

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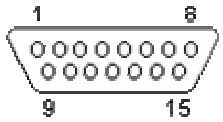
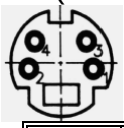
ADC DAC (Sub-D 15pin male)



PIN	I/O	NAME	DESCRIPTION
1	--	GND	
2	Out	DAC Channel 2	F_{max}=200Hz
3	Out	Reference	Vref=2.5V typ.
4	In	AIn3+	Differential input, Channel 3, positive input
5	In	AIn2+	Differential input, Channel 2, positive input
6	In	AIn1+	Differential input, Channel 1, positive input
7	In	AIn0+	Differential input, Channel 0, positive input
8	--	+5V	
9	--	GND	
10	Out	DAC Channel 1	F_{max}=200Hz
11	Out	Bias	VBias=3.3V typ.
12	In	AIn3-	Differential input, Channel 3, negative input
13	In	AIn2-	Differential input, Channel 2, negative input
14	In	AIN1-	Differential input, Channel 1, negative input
15	In	AIn0-	Differential input, Channel 0, negative input

I^2C (Mini DIN 4pin female)



PIN	I/O	NAME	DESCRIPTION
1	--	GND	
2	--	+5V	
3	I/O	SDA	Data Master
4	I/O	SCK	Clock Master

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