



STUTT GART™

M64 Linux Controller

The Stuttgart™ range of field controllers are designed to bring true intelligence to the field in a wide temperature and robust packaging. The M64 is a Linux computer with Cortex™ A7 processor and a 5" capacitive touch screen LCD. It has a host of programmable analog and digital interfaces.

KEY FEATURES

- High reliability embedded processor
- Linux Operating System
- USB, Ethernet, Bluetooth, WiFi
- Software configurable IO
- AI support
 - OpenAI
 - Deeplearning4j
 - OpenCog
- JVM support
- QT libraries with cross compilation



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INTELLIGENCE
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flexible
solutions for
TRAFFIC

ENGINEERING
EXCELLENCE

STUTTGART™

M64

ANALOG/DIGITAL IO

- 12 soft reconfigurable Digital/Analog ports
 - 12bit ADC Single Ended, Differential lines
 - 12bit DAC with overdrive protection
 - Programmable Gain
 - Digital input/output with threshold
 - Programmable analog switch between pins
- 6 digital 500mA outputs / 6 inputs

COMMUNICATIONS OPTIONS

- 3G/LTE cellular with GPS
- 100baseT Ethernet
- Bluetooth 4.2
- Wi-Fi 802.11 b/g/n
- Full duplex RS485 field hardened
- Half duplex RS485 / Full duplex RS232 port
- 2* CAN 2.0 Ports
- External I2C

OTHER OPTIONS

- 5" capacitive touch screen
- USB 2.0
- Internal Temperature/Humidity sensor
- Up to 1GB DDR3L
- Up to 64GB eMMC
- uSD card up to 128GB

Characteristic	Min	Max	Units
Storage Temperature	-40	105	°C
Operating Temperature	-20	75	°C
Power Supply	10	30	V
Power Consumption	4.5	8.5	W
Analog Outputs Drive		25	mA
Analog Inputs Range	-10	+10	V
Digital Outputs Range	0	50	V
Digital Input Threshold	0	2.5	V
Bluetooth Radio		12	dBm
RS485	-7	12	V



Soft mixed signal IO Configuration Software



ENGINEERING EXCELLENCE

The screenshot displays the configuration software interface. On the left, a 'Components' sidebar lists various modules: Single Ended ADC, Differential ADC, DAC, DAC with ADC Monitoring, GPI, GPO, Level Translator, Bi-Directional Level Xtr, GPI Controlled Analog Switch, and Software Controlled Analog Switch. The main workspace shows a circuit diagram with pins P0 through P11 on the left and right. Various components are connected to these pins, including ADCs and DACs. On the right, a 'DAC' configuration panel is visible, showing 'Pin Info' (Output Pin P6), 'Voltage' (Output Level 4 V), and 'Voltage Range' (Range 0V to 10V). Below this panel, a note states: 'Range DAC output voltage range based on the reference voltage selection.'

