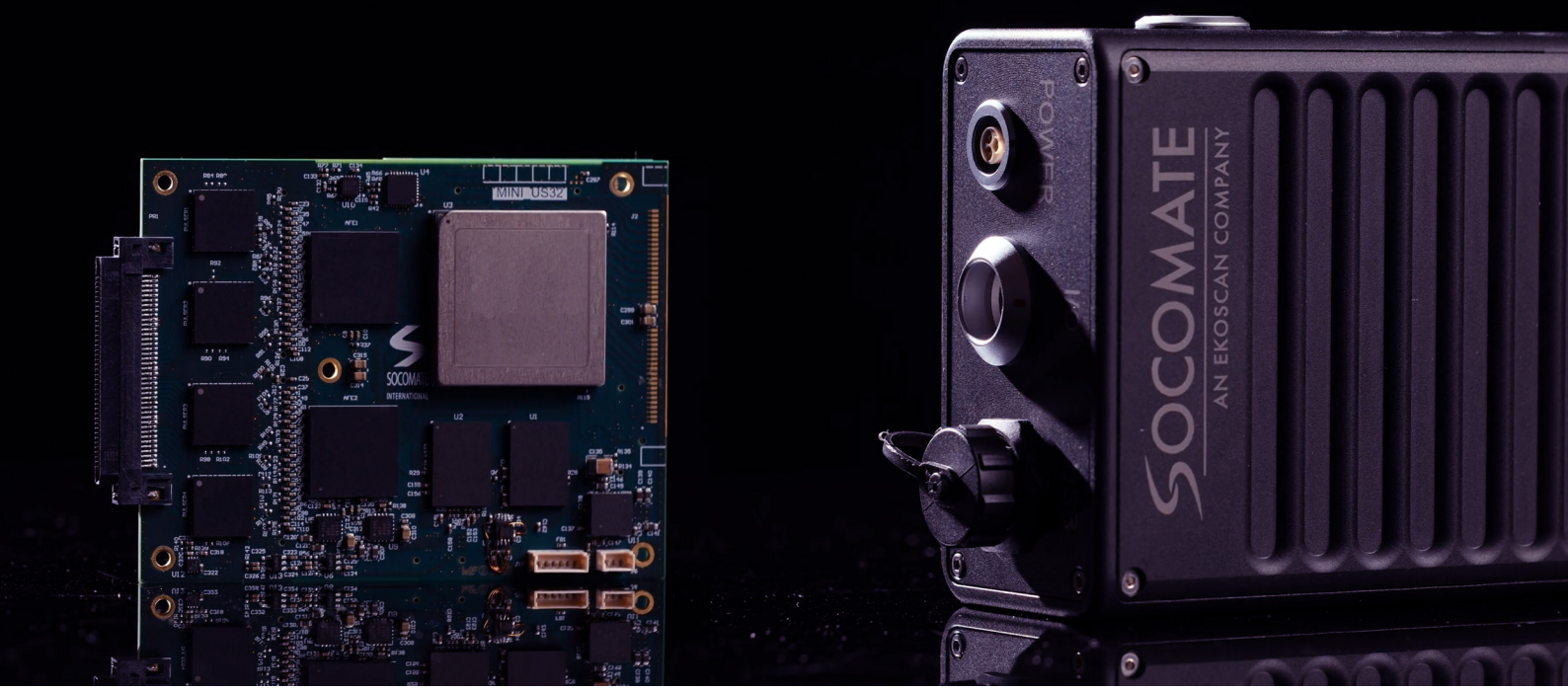
SOCOMATE
AN EKOSCAN COMPANY

SPIKE

COMPACT & VERSATILE PHASED-ARRAY UT BOARD



Unleash the power of the newest **SPIKE PAUT boards** built for challenging inspection requirements. Experience seamless integration thanks to its **modular compact design** and **multi-environment compatibility**.

ADVANTAGES

- **EASY DEPLOYMENT FOR ALL TYPES OF AUTOMATION**
- **COST-EFFECTIVE PAUT INSPECTION SOLUTION**
- **FLEXIBLE MULTI-OS ENVIRONMENT**
- **REDUCED TIME FOR INTEGRATION**

KEY FEATURES

- Multiplexed 16:64 to 32:128 PAUT board
- Compact and low consumption
- Windows, Linux and Android compatible
- FMC recording capabilities
- Very-high data throughput
- Fully-documented SDK - DLL

APPLICATIONS / INDUSTRIES

IN-LINE
Gantry, robot, immersion tank

ON-SCANNER
ROV, crawler, drone

FIELD INSPECTION
Portable flaw detector

R&D
Desktop unit, laboratory

www.socomate.com
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TECHNICAL FEATURES

GENERAL

	WITHOUT CASING	WITH FANLESS CASING
CONFIGURATIONS	16:64, 32:64, 32:128 CHANNELS	16:64, 32:64, 32:128 CHANNELS
DIMENSIONS (H X W X D)	20 X 95 X 75 mm (0.9 X 3.7 X 3.0 in)	47.9 X 171.6 X 90 mm (1.9 X 6.7 X 3.5 in)
WEIGHT	70 TO 90 g (0.15 TO 0.2 lb)	1060 g (2.34 lb)
OPERATING TEMPERATURE	0 TO 40°C (32 TO 104°F) HEAT SINK REQUIRED	0 TO 40°C (32 TO 104°F)

INSTRUMENT

POWER SUPPLY	5-15 V DC
POWER CONSUMPTION	5 TO 15 W*
UT CONNECTORS	SAMTEC (NATIVE), IPEX OR HYPERTRONICS (OPTIONAL)
I/O	3 ENCODERS (5V SUPPLIED), 1 EXTERNAL TRIGGER, 1 PROGRAMMABLE INPUT, 4 PROGRAMMABLE OUTPUTS
DATA THROUGHPUT	UP TO 320 Mb/S THROUGH USB 3.0

PULSERS

VOLTAGE	20 TO 100 VPP (1V STEP)
PULSER TYPE	NEGATIVE OR BIPOLAR SQUARE PULSE
PULSE WIDTH	25 ns TO 500 ns (5 ns STEP)
PULSE REPETITION FREQUENCY (PRF)	100 Hz TO 20 kHz

RECEIVERS

BANDWIDTH	0.8 TO 20 MHz
ANALOG GAIN	0 TO 30 dB
DIGITAL GAIN	0 TO 60 dB (0,1 dB STEP)
DIGITAL GAIN PER CHANNEL	-6 TO 12 dB (0,1 dB STEP)
DIGITAL TCG	UP TO 16 POINTS PER SHOT

*Depending on configuration.

Specifications subject to change without notice.

PHASED-ARRAY

FIRING MODES	PULSE-ECHO, THROUGH TRANSMISSION, ELECTRONICAL SCANNING, SECTORIAL SCANNING
FMC RECORDING	UP TO 32 CHANNELS*
NUMBER OF DELAY LAWS	UP TO 1024
ACTIVE APERTURE	UP TO 32 CHANNELS*
MAX DELAY LAW	UP TO 20 µs

DIGITIZER - SIGNAL PROCESSING

A-SCAN DISPLAY	RF, RECTIFIED, ENVELOPE (HILBERT)
FILTERS	ANALOG AND DIGITAL FILTERS ON ELEMENTARY CHANNELS DIGITAL FILTERS ON SUM
TIME DELAY	UP TO 2 ms
A-SCAN RESOLUTION	14 BITS (16 BITS FOR PROCESSING)
SAMPLING FREQUENCY	UP TO 100 MHz FOR PA, UP TO 50 MHz FOR FMC
DIGITIZING DEPTH	UP TO 32K SAMPLES
GATES	3 INCLUDING SYNCHRO GATE
GATE DETECTION TYPE	FIRST ECHO, MAX ECHO

SDK PACKAGE

OPEN SOURCE SDK	YES
SOFTWARE LANGUAGES	CODE EXAMPLES IN C, C++ AND PYTHON ALL LANGUAGES COMPATIBLE
OPERATING SYSTEM	WINDOWS 64, LINUX, ANDROID
DEMO SOFTWARE	OPEN SOURCE, COMPATIBLE WITH ALL OS ENVIRONMENTS
CONFIGURATION SOFTWARE	SYNAPSE (OPTIONAL)