OPERATING MANUAL
for
QUARTZDYNE®
QCOM

QUARTZDYNE, INC.

A DOVER COMPANY

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Quartzdyne QCOM
Operating Manual

1. INTRODUCTION

The QUARTZDYNE® QCOM interface incorporates a microprocessor to convey pressure and temperature data from a single frequency or digital transducer to a host computer using USB. Multiple transducers can be simultaneously connected using multiple QCOM boxes and available host computer USB ports or a USB hub.

The user can access pressure and temperature data using Quartzdyne's QCOM application software which can be downloaded from http://qd.quartzdyne.com/public/QCOM/QCOM-Download.php. Along with providing pressure and temperature data, the QCOM software provides the user with coefficient file management, variable gate-time adjustment, and data logging. The software also allows QCOM firmware to be updated in the field. For a more customized software environment, the web link (above) also includes a QCOM DLL and example code for Visual C++, Visual Basic, and LabView.

2. ELECTRICAL SPECIFICATIONS

2.1 Environmental

Operating Temperature	0 to 60°C
Storage Temperature	-25 to +60°C
Hermeticity	Dust Proof
Plastic Enclosure	ABS (UL94-HB)

2.2 USB Communication

USB Specification	2.0 compliant
Speed	Full Speed (12Mbps) or Low Speed (1.5Mbps)

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2.3 I²C Communication

Input Voltage	5V Logic Levels
Internal Pull-Up Resistor	3.32 kΩ
Cable	Fully shielded, max 2m

3. HARDWARE

3.1 Dimensions

67.22mm [2.647”] x 66.22mm [2.607”] x 28mm [1.102”]

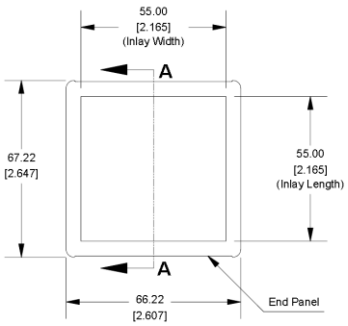


Figure 1. QCOM Top View

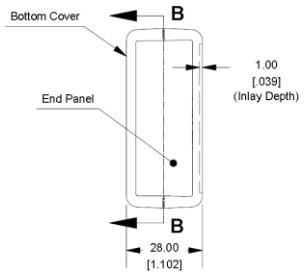
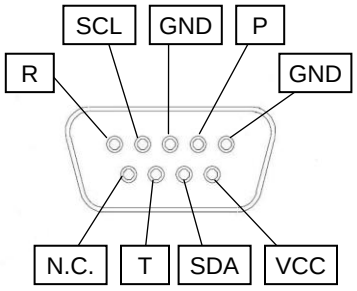


Figure 2. QCOM Back View

3.2 Transducer Connections

The transducer interface is compatible with Quartzdyne frequency and digital transducers. A single female 9-pin DB9 transducer port is located on the QCOM back panel (see Table 1). Each connection is designed to be protected from reasonable static discharges. However, care should be taken to prevent static discharges to QCOM*’s* connectors. Users should properly discharge potential static sources before handling any of Quartzdyne’s electronic devices.

Table 1. Transducer Connector Pinout



Pin #	Label	Description
1	GND	Ground
2	P	Pressure Signal Input
3	GND	Ground
4	SCL	I^2C Clock (100kHz max)
5	R	Reference Signal Input
6	VCC	5Vdc Output
7	SDA	I^2C Data
8	T	Temperature Signal Input
9	N.C.	No Connect

A list of cables which connect a transducer to the QCOM device can be found in Table 2.

Table 2. Cable Reference

FROM Device	FROM Device Connector	FROM Cable Connector	Cable Part #	Cable Length	TO Cable Connector	TO Device Connector	TO Device (Qcom)
Frequency Transducer	5-Pin Fischer	5-Pin Fischer	**D11876-08R5** **D11876-84R0**	8.5” 7’	DB-9 (Male)	DB-9 (Female)	
Digital Transducer	4-Pin Fischer	4-Pin Fischer	**D11879-08R5** **D11879-84R0**	8.5” 7’	DB-9 (Male)	DB-9 (Female)	
Digital / Frequency Transducer	7-Pin (Male)	7-Pin (Female)	**D11778-08R5** **D11778-84R0**	8.5” 7’	DB-9 (Male)	DB-9 (Female)	
Digital DSB Transducer 	6-Pin Mini-Din (Male)	6-Pin Mini-Din (Female)	 **D11652-01**	5”	DB-9 (Male)	DB-9 (Female)	
1” Frequency (QG/QH)	5-Pin 1” Feed Thru (Male)	5-Pin 1” Feed Thru (Female)	**D11875-08R5** **D11875-84R0**	8.5” 7’	DB-9 (Male)	DB-9 (Female)	

3.3 USB Communications

QCOM communicates with a host computer using full-speed or low-speed USB (USB A-to-B cable not included). Multiple QCOMs can be connected to the same host computer using available USB ports or a USB hub.

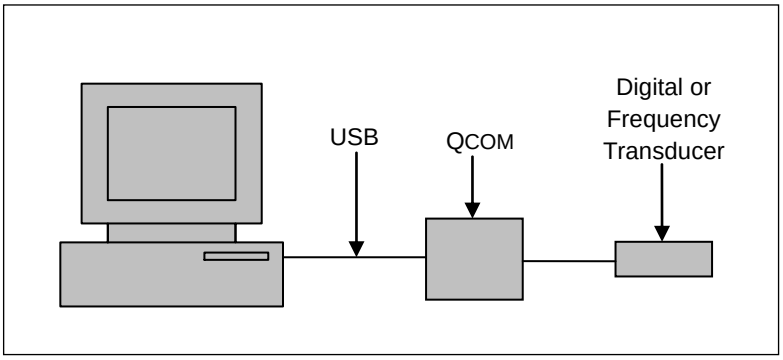


Figure 3. QCOM Connection Diagram