

## TECHNICAL DATASHEET

### **Apex Remote Airborne Particle Counters**

Features	R3	R5	R02	R03	R05				
Minimum Size Detection	0.3 µm	3 μm 0.5 μm		0.3 µm	0.5 µm				
Standard 2 channel sizes	0.3, 0.5 μm	0.5, 5.0 μm 0.2, 0.3 μm		0.3, 0.5 μm	0.5, 5.0 μm				
Optional 4 channel sizes	0.3, 0.5, 1.0, 5.0 µm	0.5, 1.0, 5.0, 10.0 µm	0.2, 0.3, 0.5, 1.0 µm	0.3, 0.5, 1.0, 5.0 µm	0.5, 1.0, 5.0, 10.0 µm				
Additional Available sizes	0.3, 0.5, 0.7, 1.0, 3.0, 5.0 µm	0.5, 0.7, 1.0, 3.0, 5.0, 7.0, 10.0 µm	0.2, 0.3, 0.5, 0.7, 1.0, 2.0 μm	0.3, 0.5, 0.7, 1.0, 3.0, 5.0 µm	0.5, 0.7, 1.0, 3.0, 5.0, 7.0, 10.0 µr				
Flow Rate	1 C	1 CFM (28.3 LPM)		0.1 CFM (2.83 LPM)					
Weight	1.0	6 lbs (0.73 kg)	1.4 lbs (0.63 kg)						
Communication		Ether	net or Serial						
Modbus Protocol	TCP or RTU or ASCII								
Data Storage Records	3,000								
Self Diagnostics	Yes								
Web Browser	Yes								
Validation Mode	Yes								
Alarm Light	Yes								
Enclosure	304 Stainless Steel								
Power		24	VDC, PoE						
External Vacuum Requireme	ents	Nominal 1.0 CF	M 18" (45.72 cm) of Hg						
Light Source		La	ser Diode						
Calibration		Designed for ISC	21501-4 Compliance						
Zero Count Level		<1 count/5 mir	nutes per ISO 21501-4						
<b>Concentration Limits</b>	500,000 particles/ft3 (17,150,000/m3) @ 5% coincidence loss suitable for ISO classes 1-8 cleanrooms								
Counting Efficiency	50% @ minimum channel size, 100% for particles >1.5X - 2X channel 1 particle size								
Dimensions	6.38" x 2.93" x 4.63" (16.2 x 7.4 x 11.7 cm)								

#### **Options Available for all Models**

Software LMS Express or LMS Express RT or LMS Pharma





Smart Bracket Wall Mount Through Base

•.....

Smart Bracket Wall Mount Through Wall



# **ApexRemote**

AIRBORNE PARTICLE COUNTERS

#### Lighthouse Worldwide Solutions Operations

**Corporate Headquarters** 47300 Kato Road Fremont, CA 94538 USA

Tel: +1 510 438 0500 Fax: +1 510 438 3840

#### Manufacturing Operations

1221 Disk Drive Medford, OR 97501 USA

Tel: +1 541 770 5905 Fax:+1 541 770 2033

#### **Benelux Operations**

Van Heemstraweg 19-A 6657 KD Boven-Leeuwen The Netherlands

Tel: +31 487 560811 Fax: +31 487 560013

NO: 1/26 Cekmekoy/Istanbul Turkey

Tel: +90 216 640 0 597 Fax: +90 216 640 0 598

9/13 Moo 5, Phaholyothin Rd. T. Klongneung, A. Klongluang Pathumthani, 12120 Thailand

Tel: +662 902 2722-3 Fax: +662 902 2724

#### **Malaysia Operations**

No. 18-32-A1 & A2 Gurney Tower, Persiaran Gurney Georgetown, 10250 Penang Malaysia

Tel: +604 370 1229 Fax: +604 370 1209





#### **EMEA Operations**

Mimar Sinan Mh. Cavusbasi Cd. Ozge Sk. Zin D Business Center

#### **Thailand Operations**



# **ApexRemote**

## AIRBORNE PARTICLE COUNTERS



01/28/15	15:41
0.5	591
5.0	48







#### Self-Diagnostics

The Apex Remote was designed with internal Self-Diagnostic technology that continuously monitors the health of the laser ensuring reliability of the particle count data.

Apex Self-Diagnostics on the laser, flow rate, and particle detector ensure that data being collected is operating within specified tolerances.



#### **SmartBracket**

SmartBracket was designed with a built -in automatic location ID and ensures your particle data is tagged with the correct location ID at all times.

Apex Remote sensors can be moved between different SmartBracket mounted locations on the network.



SmartBracket: Flush Wall Mount



# **DataAvailability**

#### **Data Availability**

View Apex Remote real-time data on any laptop, tablet or smart device web browser. Choose our optional OLED display to view data locally on the Apex Remote at the particle collection point. Run reports using our optional LMS Express, LMS Express RT or LMS Pharma application software, or connect to 3rd party software using standard Modbus Protocols.



View real time data on your laptop, tablet or smart device web browser.

## **OLED** Display Option

The Apex Remote was designed with an optional local display for viewing real time particle count data.

LMS Express RT LMS Pharma or 3rd party software using standard Modbus protocols.						•
Image: Serial #: 150110033:   Status						LMS Express RT
Control     Control <t< td=""><td></td><td></td><td></td><td></td><td></td><td>LMS Pharma</td></t<>						LMS Pharma
TIME   0.5   5.0     22:42:15   846   8     22:42:14   8402   119     22:42:04   8172   89     22:41:54   8149   104     22:41:34   7372   51     LAST CAL: 01/12/15   Flow: GOOD     Laser Current: GOOD   PA Supply: GOOD     Laser Power: GOOD   PA Supply: GOOD	Serial#: 1501100033 Model: ApexR5 Location: 00000002	_		-	03/02/15 OD 00:00:00 OS 00:00:10	
22:42:15   846   8     22:42:14   8402   119     22:42:04   8172   89     22:41:54   8149   104     22:41:34   7372   51     LAST CAL: 01/12/15   Flow: GOOD     Laser Current: GOOD   PA Background: GOOD     Laser Power: GOOD   PA Supply: GOOD	-		E O			
22:42:14   8402   119     22:42:04   8172   89     22:41:54   8149   104     22:41:44   7495   86     22:41:34   7372   51     LAST CAL: 01/12/15   Flow: GOOD     Laser Current: GOOD   PA Background: GOOD     Laser Power: GOOD   PA Supply: GOOD					≋	
22:41:54   8149   104   DATA   STATUS     22:41:44   7495   86     22:41:34   7372   51   LAST CAL: 01/12/15   Flow: GOOD     Laser Current: GOOD   PA Background: GOOD   Laser Power: GOOD   PA Supply: GOOD	22:42:14	8402	119	Model: ApexR5		Øs 00:00:10
LAST CAL: 01/12/15 Flow: GOOD   Laser Current: GOOD PA Background: GOOD   Laser Power: GOOD PA Supply: GOOD	22:41:54	8149	104	DATA	STATUS	
Laser Power: GOOD PA Supply: GOOD	22:41:34	7372	51	LAST	CAL: 01/12/15	Flow: GOOD
				Laser Curre	ent: GOOD	PA Background: GOOD
Laser Supply: GOOD PA Health: GOOD				Laser Po	wer: GOOD	PA Supply: GOOD
				Laser Sup	ply: GOOD	PA Health: GOOD

# Web Browser

Software

LMS Express

## **EnvironmentalCompatibility**

#### Compatible with all decontamination processes

The Apex Remote uses a 304 Stainless Steel Enclosure:

- Sealed Inlets
- Wipedownable Sloped Top
- FDA Approved Plastics
- Compatible with H<sub>2</sub>O<sub>2</sub> Vapor Decontamination.



#### **Sloped front edge**

The Apex Remote was designed with a sloped front edge for easy decontamination wipedown.



#### Shielded cable and tubing options

SmartBracket shielded wall mounts come with the data cable and vacuum tubing exiting out of the base or through the wall.



SmartBracket: Shielded Wall Mounts All cable and tubing ports are sealed.