

SENSE · PRODUCT DATA SHEET

SENSE CONTROL

Bluetooth Mesh Platform · 5 Connected Accessories

Five devices. One mesh.

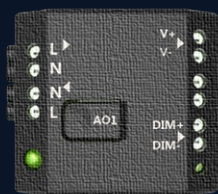
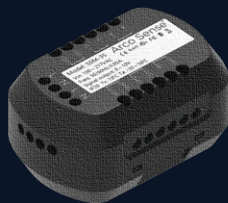
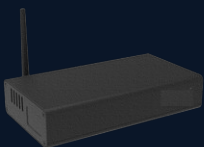
The Sense Control Platform extends the mesh fabric beyond the luminaire. A wireless gateway bridges Bluetooth mesh to TCP/IP; control modules add 0-10V and analog control to legacy fixtures; beacons enable asset tracking; the AMEPD display gives every space a low-power room console. All native to the same Bluetooth 5.1 mesh — every device a node, every node a sensor.

BLUETOOTH 5.1

MESH NATIVE

SIG SECURE

SCADA READY



AVAILABLE WITH*

Sense™

PLATFORM · DEVICES

Five devices, one platform.

Each device a node. The network a system.

Gateway

AS-GW-01

Mesh ↔ network

Power

5VDC, <2W

Wireless

BT 5.1 + LAN

I/O

RJ45 · USB

Role

Mesh bridge

Size

180·213·41 mm

Case

Black / White

Control

AS-SSM-35

Fixture controller

Power

100-277V, <2W

Wireless

BT 5.1 mesh

Output

0-10V + relay

Sensor

PIR motion

Size

73·49·15 mm

Case

Black / White

Analog

AS-AO-01

Analog dimmer

Power

85-265V, <2W

Wireless

BT 5.1 mesh

Output

0-10V + relay

Aux

12VDC out

Size

73·49·15 mm

Case

Black / White

AMEPD

AS-E11-6A10

Room display

Power

6VDC, 600 mA

Wireless

BT 5.1 mesh

Display

11.6" E-Paper

Pixels

640 × 960

Size

254·176·0.9 mm

Battery

≈ 2-year life

Beacon

AS-BCN-05

Asset beacon

Power

CR2032 220 mAh

Wireless

BT 5.1 iBeacon

Output

iBeacon tag

Range

60 m

Size

46·41·6 mm

Case

Black / White

PLATFORM · MESH FABRIC

All devices speak Bluetooth 5.1 mesh. SIG-encrypted commissioning. Self-healing topology. Gateway bridges the entire mesh to TCP/IP for SCADA, BMS, or cloud.

Protocol	Bluetooth 5.1 mesh · SIG profile
Security	AES-128 commissioning · IRK rotation
Node count	Up to 32,767 nodes per network
Backhaul	Gateway → TCP/IP · REST / MQTT
Coverage	Hop-extending self-healing mesh

MECHANICAL · ENVIRONMENT · COMPLIANCE

Built for the network.

Shared spec across the 5 devices.

Mechanical

Dimensions

Gateway 180·213·41 mm
 Modules 73·49·15 mm
 AMEPD 254·176·0.9 mm
 Beacon 46·41·6 mm

Housing

ABS shell (UL94 V-0)
 AMEPD: matte white

Case Color

Black (standard)
 White (optional)

Antenna

PCB chip + external

Connections

Terminal block, USB, RJ45
 device-dependent

Mounting

Surface · In-fixture · Carry

Environment

Operating Temp

-20 to 40° C (-4 to 104° F)

Max. Case Temp

70° C (158° F)

Storage Temp

-20 to 50° C (-4 to 122° F)

Ingress Rating

IP20 — Indoor only

Humidity

0 – 80%, non-condensing

Radio Frequency

2.4 GHz ISM band

Output Power

+4 dBm (Gateway / Modules)

Battery (Beacon)

CR2032 · ≈ 5-yr life

Compliance

Approbation

CE · FCC · IC · KC

Location

Indoor / Dry (IP20)

Wireless

Bluetooth 5.1 SIG
 BT Mesh profile v1.0.1
 FCC Part 15.247
 EN 300 328 / EN 301 489

RoHS

Compliant

Patent Portfolio

Protected by an 80+
 patent portfolio across
 US, EU, Asia

AVAILABLE WITH*

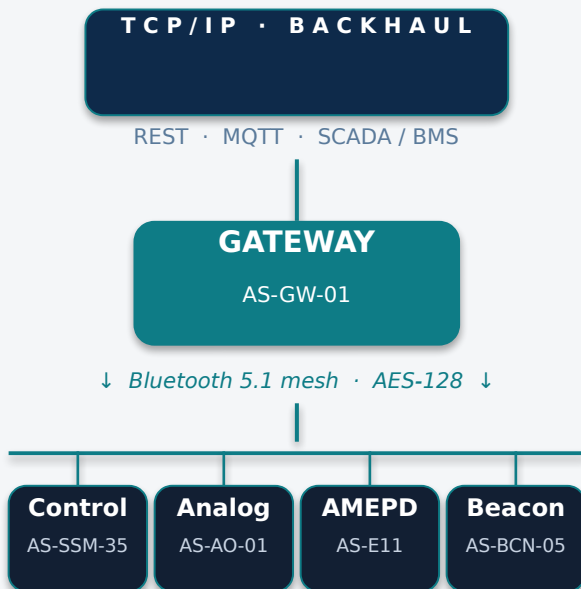
Sense™

How it connects.

One gateway. Many nodes. Open backhaul.

System topology

Three layers. One mesh fabric.



Every node both reports and relays.
Up to 32,767 nodes per mesh network.

Applications

What the platform unlocks per space.

Warehouse / industrial

Gateway + Control modules give per-aisle 0–10V dimming on legacy fixtures. Beacons enable forklift / asset tracking across the bay.

Office / commercial

AMEPD displays at every meeting room. Control modules drive daylight-harvest scenes. Gateway exposes status to BMS.

Retail

Beacons drive proximity analytics. Control / Analog modules adapt to store-hours scenes via mesh.

Healthcare

AMEPD displays as low-power room signage. Sense modules deliver circadian shifts without rewiring fixtures.

C O N T A C T

Specify a Sense device.

Singapore HQ

Arco Illumination Pte. Ltd.
No. 8 Penjuru Lane
Singapore, 609189

Online

arco-illumination.com
info@arco-illumination.com

OEM · Distributor

partnerships@arco-illumination.com