



**WIRELESS.
DISTRIBUTED.
NETWORKED.**



Integrated Multiband Solution
License-Free 5.3 and 5.8 GHz
U-NII Bands

Product Overview

The S3100 is SmartSight's latest addition to its family of outdoor wireless digital video bridging products. The S3100 leverages SmartSight's SPCF™ protocol, which resolves the "hidden node," quality of service, range, and security problems inherent to 802.11 wireless networking products.

The S3100 license-free wireless video bridge is used to wirelessly link SmartSight's S1100w™ wireless video transmitters, or S1500e™ series and S1600e™ video servers in remote locations, to the customer's Ethernet LAN. Several of these bridges can be used to create multiple video links covering a large geographical area (e.g., citywide monitoring). Configuration and management are made easy with the nDVR™, LVM, VVM, or SConfigurator™ software.

Two or more units can be combined to form multibranch repeaters to circumvent natural or man-made obstacles. The S3100 is available with power-over-Ethernet injection, simplifying installation by reducing the number of cables that need to be run. The S3100 product platform is built on open standards to provide long-term investment protection.

Key Features

- Enables the deployment of CCTV or video monitoring system throughout parking lots, parks, ports, airports, railway facilities, multibuilding complexes, critical citywide locations and streets, or highway intersections
- Supports up to sixty high-quality video links at any given site; this number can grow with proper RF site planning
- Flexible wireless digital repeater functions allow circumventing RF path obstructions or increasing system range and coverage with no degradation in video signal quality
- Supports remote configuration and firmware upgrade from any S3100 node on the network
- End-to-end secure wireless link using AES encryption with rotating 128-bit key
- SmartSight's SPCF polling protocol resolves the "hidden node," quality of service, and security problems inherent to using conventional 802.11 wireless networking products
- Access control via SSL-based authentication for unit and wireless network configuration and control

Specifications

Network

RF Interface	SmartSight's SDCF™ for backbone applications SmartSight's SPCF for point-to-point applications
Frequency	5.250-5.350 GHz (U-NII-2) 5.725-5.825 GHz (U-NII-3 / ISM)
Modulation	OFDM
Output power	18 dBm
System gain	5.250-5.350 GHz with 13 dBi antenna: 128 dB 5.725-5.825 GHz with 13 dBi antenna: 126 dB 5.725-5.825 GHz with 18 dBi antenna: 135 dB 5.725-5.825 GHz with 24 dBi antenna: 147 dB
Range (RF line of sight)	5.250-5.350 GHz (13 dBi): up to 2.5 miles (4.0 km) 5.725-5.825 GHz (13 dBi): up to 2.0 miles (3.3 km) 5.725-5.825 GHz (18 dBi): up to 5.1 miles (8.2 km) 5.725-5.825 GHz (24 dBi): up to 10.2 miles (16.4 km)
Data rate (max. burst rate)	6, 9, 12, 18, 24, and 36 Mbps (48 and 54 Mbps not yet available)
Channel	8 non-interfering
Encryption	128-bit AES
Protocols	Transport: RTP/IP, UDP/IP, TCP/IP, or multicast IP Others: DNS and DHCP client
Security	SSL-based authentication
LED indicator	Status, wireless activity, LAN activity
Power connector	Weatherproof circular
Antenna connector	SMA-female
Ethernet connector	Weatherproof 10/100Base-T (RJ-45)

Power

Input voltage	48V DC PoE or 24V AC direct (for the repeater)
Consumption	12W (250 mA at 48V DC) 25 VA at 24V AC

Physical

Enclosure	NEMA 4X / IP 66 powder coat painted die-cast aluminum with wall-mount brackets
Size	8.1L x 5.5W x 4.1H in. (205L x 140W x 105H mm)
Weight	2.0 lbs (0.90 kg)
Environment	-22°F to 122°F (-30°C to 50°C)
Humidity	95% non condensing at 122°F (50°C)

Management

Configuration *	Local or remote: via SConfigurator, LVM, VVM, or Telnet
Firmware upgrade	Flash memory for upgrade over the network

* Product capabilities are enabled through software.

Certification and Regulation

Canada	Industry Canada RSS-210 and ICES-003
USA	FCC CFR47 part 15 (15.247, subparts B, C, and E)

Warranty

2-year limited warranty, covering parts and labor

Ordering

Part Number	S3100
Description	Multiband outdoor wireless Ethernet bridge (48V DC input) with power-over-Ethernet injector, 82-foot (25-meter) outdoor Ethernet cable, wall-mount and pole-mount brackets
Part Number	S3100-RP (repeater application)
Description	Two 24V AC multiband outdoor wireless bridges with 3-foot (1-meter) outdoor Ethernet cable, wall-mount and pole-mount brackets

Optional antennas

Part Number	ANT-WP13-5x/S
Description	13 dBi gain, 5.25-5.85 GHz band, 58° beamwidth, patch antenna with 3-foot (1-meter) SMA-N cable
Part Number	ANT-WS16-5x/S
Description	16 dBi gain, 5.25-5.85 GHz band, 90° beamwidth, sector panel antenna with 3-foot (1-meter) SMA-N cable
Part Number	ANT-WP18-5x/S
Description	18 dBi gain, 5.25-5.85 GHz band, 18° beamwidth, patch antenna with 3-foot (1-meter) SMA-N cable
Part Number	ANT-WP24-5x/S
Description	24 dBi gain, 5.25-5.85 GHz band, 9° beamwidth, patch antenna with 3-foot (1-meter) SMA-N cable

Optional accessory

Part Number	ECAB-50
Description	164-foot (50-meter) outdoor Ethernet replacement cable