AP 6321

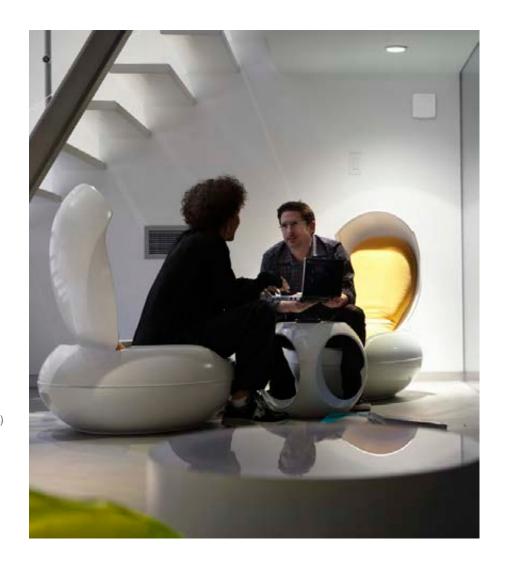## Indoor access point featuring the latest 802.11ac technology

The AP 6321 is Ericsson's highest performance indoor access point, using the latest 802.11ac Wave 1 technology for Gigabit WLAN data rates.

802.11ac represents the next generation of WLAN standards. Industry deployment of 802.11ac is occurring in two "waves". Wave 1 hardware supports only a subset of the full 802.11ac feature set, enabling high peak download rates of over 1 Gigabit per second. The AP 6321 is optimized to provide a leading-edge premium level of service for deployment scenarios such as:

• VIP sections of public venues, stadiums and arenas
• Luxury hotels and suites
• University and college lecture halls
• Conference centres
• Executive small and medium businesses (e.g. realtors, lawyers, engineers, physicians)

The second wave of 802.11ac access points planned for deployment in 2014 will implement the full set of ratified 802.11ac features. These additional features will enhance network capacity and spectral efficiency. Combined with more widespread availability of 802.11ac capabilities in smartphones, tablets and laptops, Wave 2 features will bring increased value to the carrier operator and usher in the next era of broadband wireless networking.

Together with other product series within the Ericsson Wi-Fi portfolio, the AP 6321 provides a cost-effective means of deploying the highest performance managed hot zone, 3G and 4G traffic offload and operator-managed Wi-Fi services, without sacrificing the performance and reliability that network operators demand.

The concurrent dual-radio design of the AP 6321 supports both 2.4 GHz and 5 GHz operation simultaneously with 3x3 MIMO and 3 spatial streams per band. The 5 GHz radio supports the latest high-performance WLAN standard, 802.11ac. This radio supports 80 MHz bandwidth and 256 QAM modulation rates, resulting in a peak physical data rate of 1.3 Gbps. In addition to supporting leading-edge 802.11ac clients, the radio is fully backwards compatible with clients supporting 802.11a/n.

The 2.4 GHz radio supports the robust, high-performance 802.11n WLAN standard. Supporting 40 MHz channel bandwidth, this radio enables a peak physical data rate of 450 Mbps. Older 802.11b/g clients can also be supported.

Each radio supports up to 8 Service Set Identifiers (SSIDs) for a total of 16 SSIDs for each AP. Similarly, building on MSSID support, the AP 6120 enables up to 8 fully segregated virtual APs per radio.

Security Features

- WPA and WPA2 Enterprise and Personal compliant
- 802.1x (RADIUS) and EAP authentication including EAP-SIM, EAP-AKA, EAP,TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC
- WEP 64 and 128 bit encryption
- TKIP / MIC encryption
- AES encryption per IEEE 802.11i
- MAC address Access Control Lists (ACL's)
- Wireless client blacklist
- Inter-client communication control
- Denial of Service (DoS) attack prevention (including Deauthentication DoS)
- Rogue AP detection
- Honeypot detection
- MAC spoofing protection
- RADIUS Authentication and Accounting is supported per IETF RFC 3865 and RFC 2866

Performance Features

- Standards-Based Beamforming
- MIMO
- 80 MHz Bandwidth
- Space-Time Block Coding (STBC)
- Improved Maximal Ratio Combining (MRC)
- Maximum Likelihood Demodulation (MLD)
- Low-Density Parity Check (LDPC)
- Aggregated MAC PDU (A-MPDU)
- Wireless Multimedia (WMM and WMM-PS)
- Power Save Extensions to Wireless Multimedia (WMM-PS)

Management

Device-level fault, configuration and performance management can be performed via the CLI and GUI interfaces, while Wi-Fi Manager NMS adds network-level fault correlation and performance management support. Firmware upgrade with support for automatic rollback is supported via the management interfaces. Local and remote management interfaces can be accessed via open (Telnet / HTTP) or optionally using secure (SSH / HTTPS) protocols. The products also support SNMP v1/v2c/v3 and TR-069 management interfaces for use with any compliant management system. Standard MIBs supported include MIB-II, SNMPv2, 802.11, Ethernet-like, Interface Group. User accounts with multiple privilege levels can be supported.

TECHNICAL SPECIFICATIONS
AP 6321

ELECTRICAL SPECIFICATIONS

Power requirements:
+48 Vdc with optional AC adapter
802.3at PoE+ (all features enabled)
802.3af PoE (restricted feature operation)

Backhaul Requirements:
All products support integrated wireless point-to-point, point-to-multipoint or mesh backhaul. Gigabit Ethernet WAN wired backhaul also supported.

Transmission:
1 10/100/1000Base-TX (Cat.5 RJ-45) WAN port
4 10/100/1000Base-TX (Cat.5 RJ-45) LAN port
1 USB 2.0 port for future expansion
IEEE 802.1D Bridging, IEEE 802.1Q VLANs, IEEE 802.1w RSTP and IEEE 802.1p QoS
Wide range of L2 and L3 VPN protocols to support mobility
Support for GTP and PMIP for mobile core integration

MECHANICAL SPECIFICATIONS

Mechanical Dimensions: (L x W x H): 17 x 17 x 4 cm

Weight: 360 g

ENVIRONMENTAL SPECIFICATIONS

Temperature range:
Operating: 0° to +50 °C
Storage: -40° to +80 °C

Mounting requirements:
Wall, ceiling, counter
Optional T-bar ceiling bracket

TRANSMIT POWER*

Mode	Spatial Streams					
	1		2		3	
	Rate	Tx Power dBm	Rate	Tx Power dBm	Rate	Tx Power dBm
802.11b	1 Mbps	23				
	11 Mbps	23				
802.11g	6 Mbps	23				
	12 Mbps	23				
	36 Mbps	23				
	48 Mbps	21				
	54 Mbps	20				
802.11n HT20	MCS0-4	23	MCS8-12	23	MCS16-20	23
	MCS5	21	MCS13	23	MCS21	23
	MCS6	19	MCS14	19	MCS22	19
	MCS7	18	MCS15	18	MCS23	18
802.11n HT40	MCS0-4	23	MCS8-12	23	MCS16-20	23
	MCS5	21	MCS13	21	MCS21	21
	MCS6	19	MCS14	19	MCS22	19
	MCS7	18	MCS15	18	MCS23	18

Target Tx Power per Chain 2.4 GHz

Mode	Spatial Streams					
	1		2		3	
	Rate	Tx Power dBm	Rate	Tx Power dBm	Rate	Tx Power dBm
802.11a	6 Mbps	21				
	11 Mbps	21				
	24 Mbps	21				
	36 Mbps	21				
	48 Mbps	20				
	54 Mbps	19				
802.11n HT20	MCS0-4	21	MCS8-12	21	MCS16-20	21
	MCS5	20	MCS13	20	MCS21	20
	MCS6	18	MCS14	18	MCS22	18
	MCS7	17	MCS15	17	MCS23	17
802.11n HT40	MCS0-4	21	MCS8-12	21	MCS16-20	21
	MCS5	20	MCS13	20	MCS21	20
	MCS6	18	MCS14	18	MCS22	18
	MCS7	17	MCS15	17	MCS23	17

Target Tx Power per Chain 5 GHz 802.11a/n

Mode	Spatial Streams					
	1		2		3	
	Rate	Tx Power dBm	Rate	Tx Power dBm	Rate	Tx Power dBm
802.11ac VHT20	MCS0-3	21	MCS0-3	21	MCS0-3	21
	MCS4	20	MCS4	20	MCS4	20
	MCS5-6	19	MCS5-6	19	MCS5-6	19
	MCS7	18	MCS7	18	MCS7	18
	MCS8-9	17	MCS8-9	17	MCS8-9	17
802.11ac VHT40	MCS0-3	20	MCS0-3	20	MCS0-3	20
	MCS4	19	MCS4	19	MCS4	19
	MCS5	18	MCS5	18	MCS5	18
	MCS6-7	17	MCS6-7	17	MCS6-7	17
	MCS8-9	16	MCS8-9	16	MCS8-9	16
802.11ac VHT80	MCS0-3	19	MCS0-3	19	MCS0-3	19
	MCS4	18	MCS4	18	MCS4	18
	MCS5	17	MCS5	17	MCS5	17
	MCS6-7	16	MCS6-7	16	MCS6-7	16
	MCS8-9	15	MCS8-9	15	MCS8-9	15

Target Tx Power per Chain 5 GHz 802.11ac

*Actual transmit power may be limited by regulatory requirements in the country of operation

RECEIVE SENSITIVITY

| Mode | Spatial Streams | | | | | |
| | 1 | | 2 | | 3 | |
	Rate	Rx Sens	Rate	Rx Sens	Rate	Rx Sens
802.11b	1 Mbps	-96				
802.11g	6 Mbps	-96				
	54 Mbps	-80				
802.11n HT20	MCS0	-96	MCS8		MCS8	
	MCS7	-78	MCS15		MCS15	
802.11n HT40	MCS0	-93	MCS8		MCS8	
	MCS7	-75	MCS15		MCS15	

Rx Sensitivity - 2.4 GHz

| Mode | Spatial Streams | | | | | |
| | 1 | | 2 | | 3 | |
	Rate	Rx Sens	Rate	Rx Sens	Rate	Rx Sens
802.11a	6 Mbps	-96				
	54 Mbps	-80				
802.11n HT20	MCS0	-96	MCS8		MCS8	
	MCS7	-78	MCS15		MCS15	
802.11n HT40	MCS0	-93	MCS8		MCS8	
	MCS7	-75	MCS15		MCS15	
802.11ac VHT20	MCS0	-96	MCS0		MCS0	
	MCS9	-68	MCS9		MCS9	
802.11ac VHT40	MCS0	-93	MCS0		MCS0	
	MCS9		MCS9		MCS9	-65
802.11ac VHT80	MCS0	-90	MCS0		MCS0	
	MCS9		MCS9		MCS9	-62

Rx Sensitivity - 5 GHz