Product Overview
Vega 50 Europa

Vega 50 Europa features

- Desktop unit
- I U
- FXS + 2 FXO or BRI models available

FXS

- 4 or 8 ports
- Loop start signaling
- Generate FSK (mdmf & sdmf) Caller ID
- Line current reversal generation (answer and disconnect indication)
- Loop current disconnect generation (disconnect indication only)

FXO

- 2 Fallback ports (on FXS gateways only)
- Loop start signaling
- Detects FSK (mdmf & sdmf) and DTMF Caller ID
- Line current reversal detection (answer and disconnect detection)
- Loop current disconnect detection (disconnect detection only)
- Tone detection cleardown

BRI

- 2 or 4 ports (4 or 8 simultaneous calls)
- S/T physical interface
- Euro ISDN signaling
- NT / TE configurable
- Power on NT ports (s/w configurable)

Vega general product features

- Web browser configuration
- 10 base T / 100 base TX LAN
- QOS packet marking
  - layer 3 Type Of Service
  - layer 2 802.1 p/q
- Call detail records available
  - from Telnet and Serial interfaces
  - via Radius accounting records
- Built in dial planner
  - routing
  - number translation
  - white listing
- SNMP
- SYSLOG
- Auto-load of configuration and firmware
  - at boot
  - scheduled

Vega VoIP features

- Echo cancellation
  - G.168 – up to 128ms
- Codecs / companders
  - G.711Alaw64k
  - G711ulaw64k
  - G729AnnexA (/b)
  - G.723.1
  - T.38
- Silence suppression configurable per codec

Environmental

- Operating temperature: 0ºC to +40ºC
- Storage temperature: -20ºC to +70ºC
- Humidity: 0 to 90% (non condensing)

Power

- External 30 Watt AC to 12vdc power supply
- 100 - 240 Vac, 50 - 60 Hz, 0.5A

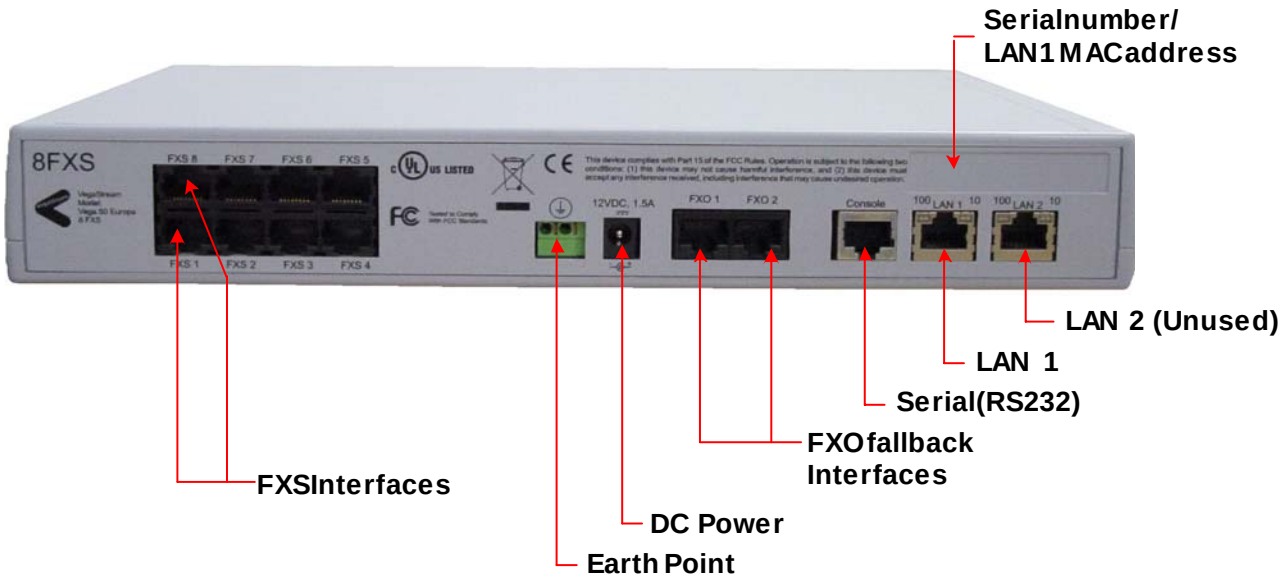
Physical dimensions

- 299.73mm (11.80") x 44.45mm (1.75") x 237.06mm (9.33") width / height / depth
- Weight: 1.02 kg

Front view:

Status LED flash patterns are defined in the Vega primer

Rear view of 8 port FXS:



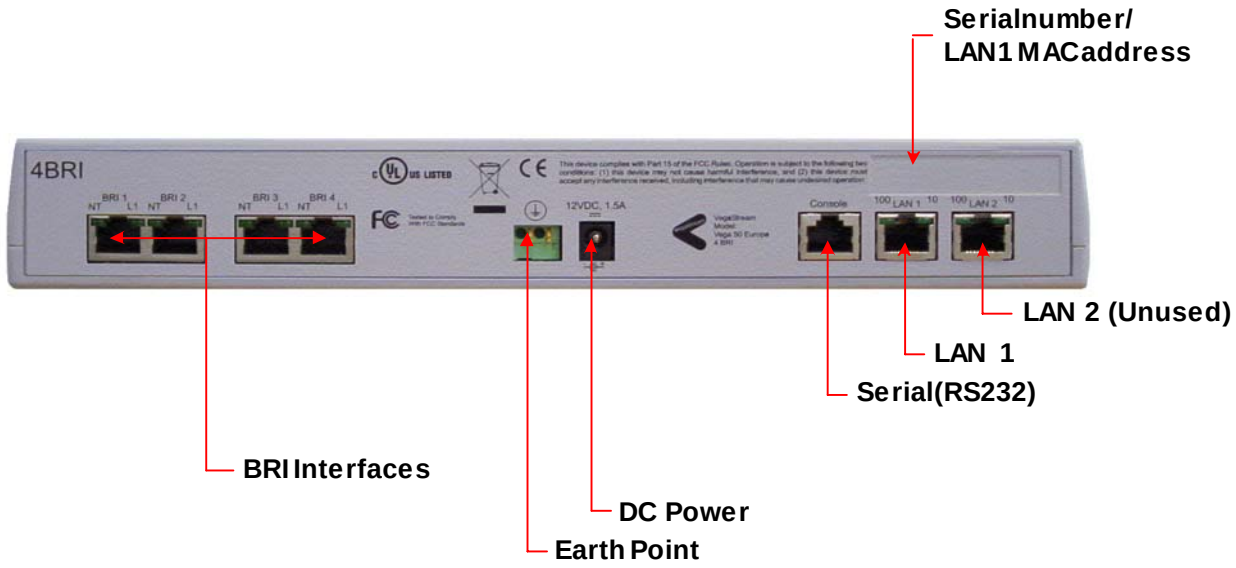
FXS interfaces:

IF 0108	IF 0107	IF 0106	IF 0105
IF 0101	IF 0102	IF 0103	IF 0104

FXO interfaces:

IF 0201	IF 0202

Rear view of 4 port BRI:

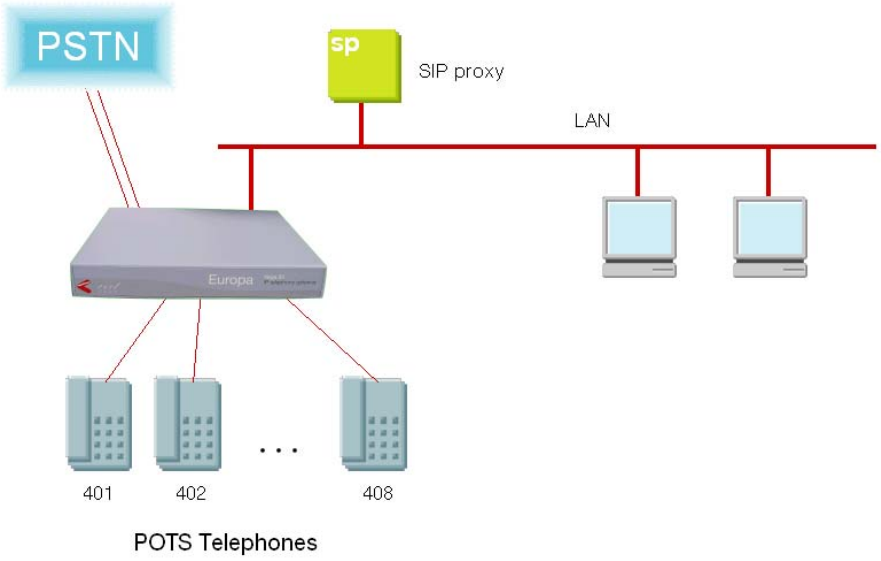


BRI L1 status LED	*LED Off*	*LED Flash*	*LED On*
Vega 50 Europa BRI	No physical connection	Physical only	Physical + layer 2

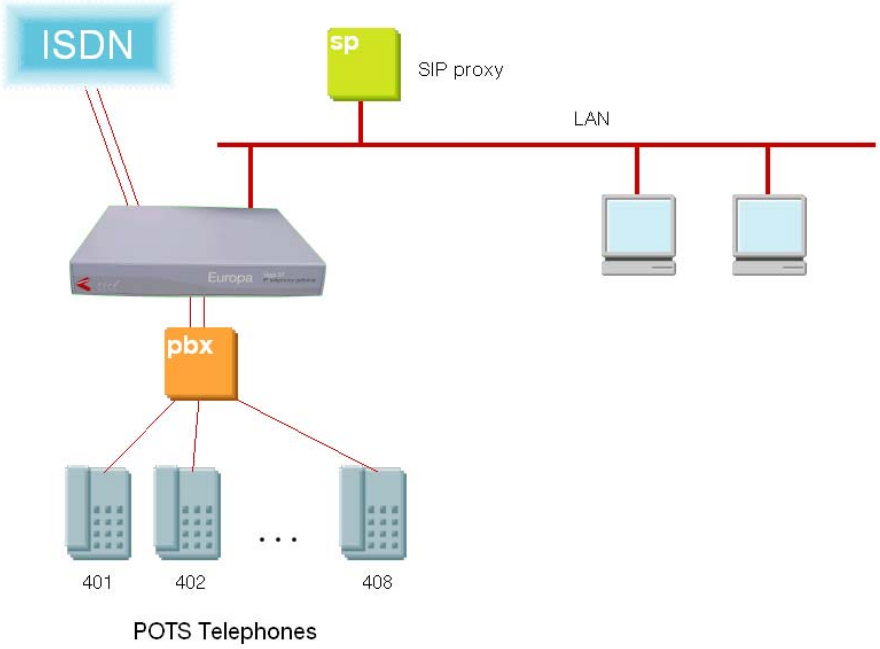
BRI Interfaces:

IF 0301	IF 0302	IF 0303	IF 0304

Typical configuration for a Vega 50 Europa FXS



Typical configuration for a Vega 50 Europa BRI



Tech Spec

FXS

•Physical
Drives up to REN 2.5
Drive capability
- 1 km @ REN 2.5
- 2.5km @ REN 1.5
- 6km @ REN 0.5

Line power supplied

•Signalling
- Loop start
- DTMF dialling detection

Line current reversal generation (aka Battery Reversal)
- answer and disconnect indication

Loop current disconnect generation (aka Battery Stop)
- disconnect indication

FSK (mdmf & sdmf) and DTMF Caller ID generation
Fallback relays on FXS ports 1 and 2 to the two fallback FXO ports

FXO

•Physical
- Software configurable interface impedance: 600R, 900R and CTR21
- REN 0

•Signalling
- Loop start
- DTMF outdial
- Line current reversal detection (aka Battery Reversal)
- Loop current disconnect cleardown detection (aka Battery Stop)
- FSK (mdmf & sdmf) and DTMF Caller ID detection

BRI

• Physical
- S/T bus connection (requires an NT1)
- I.430 framing structure
- 2 bearer channels (64 kbps) per interface
- 1 "D" channel (16 kbps)
- TE / NT mode soft configurable on each DSL
- Line power available (NT)
- Line power not required (TE)

•DSL Signalling
- Euro-ISDN (DSS1/TBR3)
- Supports point-to-point (static TEI) and
- point-to-multipoint operation (automatic TEI)

Vega and cable pinouts

The pinout of the RJ45s for FXS and FXO interfaces is as follows:

Vega 50
4 (Ring)
5 (Tip)

The order of the telephone interfaces - looking from the rear of the Vega - is bottom left to top left anticlockwise, as shown below:

BRI pinouts:

Cables with RJ48 plugs are used to connect to the Vega 50 Europa BRI ports. The pinout of the Vega 50 Europa BRI automatically change from NT to TE depending on the configuration setting in the Vega. A straight through CAT 5 cable is used to connect an NT Vega DSL to a TE far end device, and the same straight through CAT 5 cable is used to connect a TE Vega DSL to an NT far end device.

Vega 50 BRI	Far end device
TE	NT
3 (Tx+)	3 (Rx+)
6 (Tx-)	6 (Rx-)
4 (Rx+)	4 (Tx+)
5 (Rx-)	5 (Tx-)
	VegaStream provided cable(s) (ISO 8877)

Vega 50 BRI	Far end device
NT	TE
3 (Rx+)	3 (Tx+)
6 (Rx-)	6 (Tx-)
4 (Tx+)	4 (Rx+)
5 (Tx-)	5 (Rx-)
	VegaStream provided cable(s) (ISO 8877)

For Loopback between a Vega 50 Europa BRI NT port and a Vega 50 Europa BRI TE port, use a straight through CAT 5 cable

Cables with RJ45 sockets are used to connect the Vega to an Ethernet LAN hub, switch or router. A standard straight through CAT 5 cable is required.

Ethernet
1 (Tx+)
2 (Tx-)
3 (Rx+)
6 (Rx-)

Serial cable:

The serial cable consists of a lead with an RJ45 connector on the Vega gateway end and a female 9 way D-Type connector to plug into the PC.

Serial Cable	
RJ45	**9 way D-Type**
1	8
2	6
3	2
4	5
5	5
6	3
7	4
8	7