

## GSM ONLY Broadband Communication Solutions XG1



**... „250 GSM providers and global coverage - what do I need more than that ?“ ...**

**NEW: Telephone & Internet with up to 100 Mbps!**

**GSM 3G UMTS + GSM 4G LTE = traveltronic.net**  
... The Everywhere Broadband Solution

**Free WiFi spot**



### MICRO.CONNECT XG1 - Outdoor box

The XG1 GSM Broadband Communication Solution allows his user to stay connected via 2G, 3G and 4G networks with more than 500 GSM providers worldwide.

The unit is available with 1,2,3 or 4 GSM channels, supporting either 2G (EDGE), 3G (UMTS) or optional 4G (LTE) GSM networks.

It is not only a simple MIFI device, but it does aggregate multiple GSM channels together to one large failover redundant IP trunk (LINK BONDING). The system automatically selects the GSM provider with the best signal values (BEST LINK DETECTION). It preferable also locks itself into multiple different GSM providers, in order to be able to aggregate GSM IP capacity from different radio towers together to one large IP stream. Via this method mobile bandwidth speeds up to 100 Megabit are reachable.

The bandwidth re-distribution is possible either via WIFI, or via an integrated IP67 Outdoor proof RJ45 ethernet port.

The complete **MICRO.CONNECT** solution is manufactured IP 69 and is outdoor mountable.

The box can get fitted with an optional uninterruptive power supply system (UPS), which bridges in case of power loss up to 45 minutes via integrated battery. It can get operated by a simple 12 or 24 Volt car battery.

2 kind of antenna kits are available. The one delivered with each system are suited to fulfill EU standards for maximum antenna gain. The international high power antenna versions can bridge maximum signal distances up to 20 km „Ship to Shore“.

### 2+2 high power antenna Kit (left) 2+2 EU conform antennas (right)



### MICRO.CONNECT XG1 - 4 Channel

With the brand new modular 4 channel solution, traveltronic did extend its portfolio in 2014.

The solution has the new brand new 4 channel board integrated under one plastic radome of 40 cm diameter.

The concept is modular. Customers can decide if they want to activate 2, 3 or all 4 GSM channels, this system is capable to handle. So the solution does provide the highest flexibility for later upgrades.

Optional a VOIP solution and an uninterruptive power supply can get integrated upon customer request. A CE conform and a NON CE conform solution with high power 3G and 4 G antennas is available. All antennas are located weather proof under the radome.



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### Airtime:

Have you ever dreamed of one overlookable GSM cost structure, no matter where you go? No surprising Data Roaming experiences and no provider jungle?

traveltronic has made this dream come true. As Mobile Virtual Network Operator MVNO, we are operating GSM data roaming agreements with more than 500 GSM operator worldwide and can terminate your IP data in our datacenter directly.

We offer flat volume packages, including a certain amount of data volume in timeframes of 30 days, 90 days, 180 days or 360 days.

Our affordable rates make your juggling around with prepaid SIM cards not necessary any more. We not only support one provider, but up to 4 GSM providers in one country.

Please consult our website for an actual overview of our roaming partners.

### New Markets:

So far V-SAT connectivity was for many boat owners simply too expensive. Or simply not required, as the ship anyhow not was going out far to the sea.

Proper mobile connectivity - no matter in which country you want to use it, always was problematic. A compact small vehicle mountable solution so far was not available.

**MICRO.CONNECT** is a perfect solution to address exactly these new markets, which are highly in need for a proper compact and small communication solution, but so far simply not found the right one fitting their budget.

No matter of communication is machine 2 machine based and used for M2M purpose, or personal e-mail or internet use.

**MICRO.CONNECT** is the reliable communication partner if you need more than a simple mobile WIFI Router device (MIFI).

### Coverage:

**MICRO.CONNECT** targets clearly global or continent wide communication needs. We offer one EUROPEAN and one WORLD plan.


traveltronic has invented 2013 **GEOCODED BILLING**. Most likely one of the most exciting innovations in maritime communication in the last 10 years.

This allows us to precisely create plans, optimized for your required coverage area. We tailor down communication costs and adopt them cost wise to regional requirements.

Please contact us, in case you wish to have a plan covering a certain region only. We might be able to make you very attractive offer.

Please also mind, that we can offer managed VOIP solutions, based on our MICRO.CONNECT solution. **NOTE:** All MICRO.CONNECT solutions available as CE and EXPORT type Version. Please do specify upon order.

### Product Feature Comparison Table

		XG1 LOW COST 3G	XG1 LOW COST 4G	XG1 3G	XG1 2WAN	XG1 4WAN
		MICRO.CONNECT	MICRO.CONNECT	MICRO.CONNECT	MICRO.CONNECT	MICRO.CONNECT
General Section:	Low Power 3 dB GSM & WIFI Antennas included	✓	✓	✓	✓	✓
	Suited for IP.SNG MEDIA BROADCASTING Services	✗	✗	✗	✓	✓
	ALL IN ONE Feature: FULL COST CONTROL	✓	✓	✓	✓	✓
	PAY as you GO Airtime Rates supported (you pay what you consume with cost airbag)	✓	✓	✓	✓	✓
	Data Bandwith Cost airbag/ Portal Notification on Bandwith limit reach	✓	✓	✓	✓	✓
Power Supply:	Operating by Multi Voltage 12-30 Volt	✓	✗	✗	✓	✓
	Integrated UPS available (buffers system with emergency power capabilities )	✗	✗	✓	✓	✓
	Operated by 230 Volt	✗	✗	✗	✗	✗
	Constant Power Consumption (Peak can be higher)	16 Watt	16 Watt	30 Watt	45 Watt	52 Watt
GSM Hardware Section:	Total Number of parallel supported GSM channels (3G & 4G)	1	1	2	3	4
	3G GSM UMTS channels supported	1 channels	1 channels	2 channels	3 channels	4 channels
	4G GSM LTE channels supported	-	1 channel	-	1 channel	4 channel
	Maximum Bandwith via SATCOM & GSM aggregated	5 Mbps	10 Mbps	25 Mbps	100 Mbps	250 Mbps
	LINK BONDING (Bandwith Aggregation) support	✗	✗	✓	✓	✓
	SAFE LINK Algorithmus (gets best along with bad GSM networks)	✗	✗	✗	✓	✓
	BEST LINK Detect Algorithmus (chooses the best link automatically)	✗	✗	✓	✓	✓
	Optional support of customer owned and operated SIM cards	✗	✗	✗	✗	✗
Operational area:	WORLDWIDE Coverage > 530 GSM operators	✓	✓	✓	✓	✓
IP Features:	Layer 2 Direct BRIDGING ("Ethernet Switch Like VPN")	✗	✗	✓	✓	✓
	LAN Interfaces 10/100 Mbps	1	1	0	0	0
	LAN Interfaces 10/100/1000 Mbps	-	-	1	2	4
	IP.V6 prepared	✗	✗	✓	✓	✓
	IP Redudancy Backup WAN Port for additional line (DSL, INMARSAT FLEET or VSAT type)	1	1	1	2	2
	Integrated WIFI Hotspot	✓	✓	✓	✓	✓
	Harbour Network access by WIFI with bandwith aggregation	✗	✗	✓	✓	✓
Product Availability:	European Union (CE Approved)	✓	✓	✓	✓	✓
	International Version, for useage outside the European Union only	✗	✗	✗	✗	✗


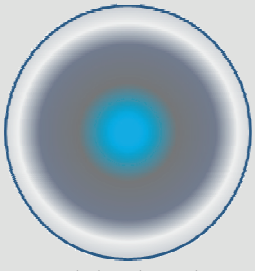
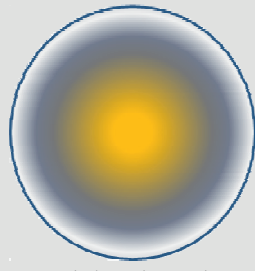

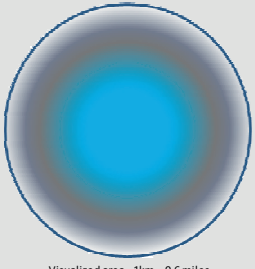
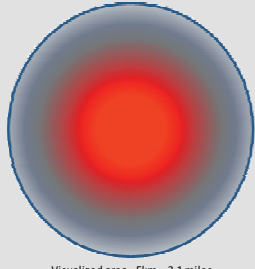
### GSM Standards

		Frequencies supported by traveltronic GSM ready systems	supported channels XG1 LOW COST 3G	supported channels XG1 LOW COST 4G	supported channels XG1 3G	supported channels XG1 2WAN	supported channels XG1 4WAN
GSM	Total number	Total number of GSM Modems (independent from Standard), integrated into system	1	1	2	3	4
2G GSM	EDGE/GPRS/GSM	Standard: 850, 900, 1800, 1900 Mhz	1	1	2	3	4
3G UMTS	HSPA/HSDPA/HSUPA	Standard: 800, 850, 900, 1900, 2100 Mhz	1	1	2	3	4
4G LTE	LTE	Standard: 800, 1800, 2600 Mhz/ Optional also 900 and 2100 Mhz or: 700, 2300, 2500 Mhz (for certain countries only)	-	1	-	1	4

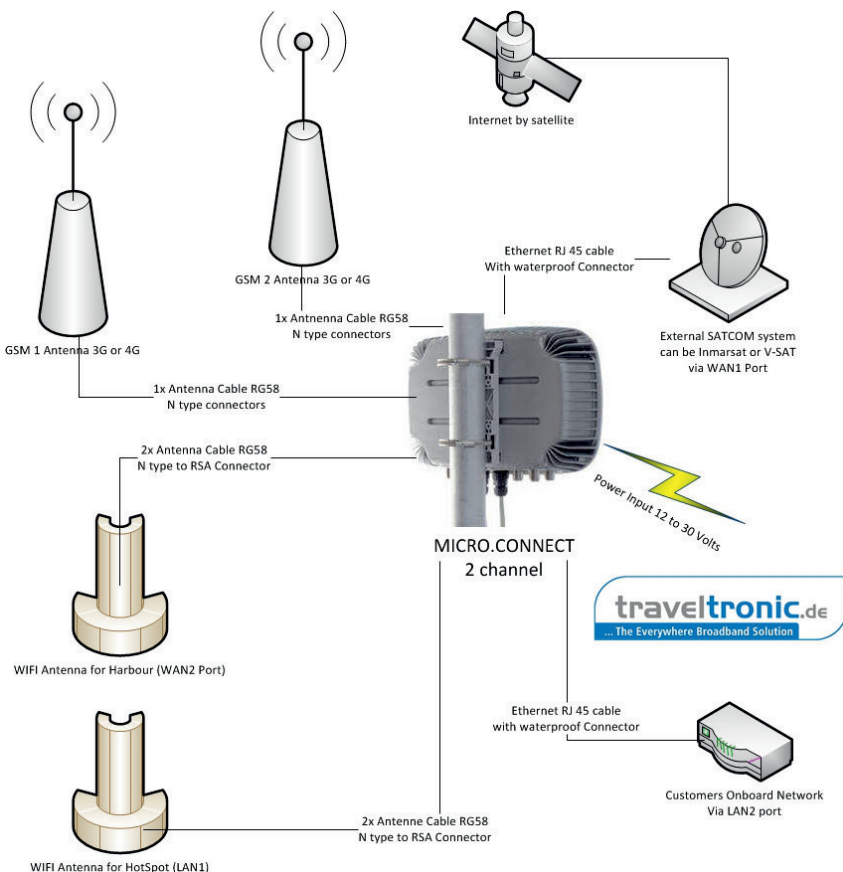


## GSM ONLY Broadband Communication Solutions XG 1

### COVERAGES

MICRO.CONNECT The High Speed GSM Worldwide Communication System		WIFI	2G GSM	3G UMTS	4G LTE
Operational Frequency Range		802.11 G, H	EDGE/GPRS/GSM	HSPA/HSDPA/HSUPA	LTE
Antenna Gain		3 dB - EU Version	3dB - EU Version	3 dB - EU Version	3 dB - EU Version
 <p>EU conform antennas</p>		 <p>Visualized area - 1km = 0.6 miles</p>	 <p>Visualized area - 30km = 18.2 miles</p>	 <p>Visualized area - 5km = 3.1 miles</p>	 <p>Visualized area - 20km = 12.4 miles</p>
 <p>High Power Antenna Versions</p>		 <p>Visualized area - 1km = 0.6 miles</p>	 <p>Visualized area - 30km = 18.2 miles</p>	 <p>Visualized area - 5km = 3.1 miles</p>	 <p>Visualized area - 20km = 12.4 miles</p>

### Wiring Example of XG1 3G system:



### VOIP/SIP Phone access

Reach worldwide destinations at attractive costs



The traveltronic XG 1 MICRO.CONNECT solution can get optionally equipped with a telephone server. This allows a communication „Ship to Shore“.

International calls are available at acceptable costs at „percentages“ of regular INMARSAT calls. All this will not stress your budget too much

Have the same comfort on your ship as if you would be on shore!

Worldwide inbound DID numbers from many countries are available, so worldwide callers can reach the boat or car on a shore based telephone number. (limitations on land based systems are possible)

Captain and crew can be operated on different circuits. Billed separate from each other.

traveltronic uses a satellite specific voice codec providing superior and jitter free communication, even if the solution operates via high latency satellite links.

Run with MICRO.CONNECT your office on your boat in your camper or in your car.





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	MICRO.CONNECT XG1 LOW COST 3G or 4G 1 Channel	MICRO.CONNECT XG1 3G 2 Channels	MICRO.CONNECT XG1 2WAN 3 Channels	MICRO.CONNECT XG1 4WAN 4 Channels
Stationbox specification				
Dimension	300mm x 240mm x 55mm (BxHxT)	300mm x 240mm x 93mm (BxHxT)	300mm x 240mm x 93mm (BxHxT)	310mm x 230mm x 66mm (BxHxT)
Weight	1kg	1.5kg without UPS system	1.5kg without UPS system	2.7kg
Material	ALU & ALU CC	ALU & ALU CC	ALU & ALU CC	ALU & ALU CC
Installation Option	Mast or Wall	Mast or Wall	Mast or Wall	Mast or Wall
Quick Mounting Plate	included	included	included	included
Temperature operational	-20°C ~ +50°C	-20°C ~ +50°C	-20°C ~ +50°C	-20°C ~ +50°C
Humidity	Up to 100% at 40°C	Up to 100% at 40°C	Up to 100% at 40°C	Up to 100% at 40°C
Power specification				
Voltage input range	10-30 Volt (operated by 24/12 V battery)	10-30 Volt (operated by 24/12 V battery)	10-30 Volt (operated by 24/12 V battery)	10-30 Volt (operated by 24/12 V battery)
Average operational power input	24 Volt, 7 Ampere / 12 Volt 4 Ampere	24 Volt, 7 Ampere / 12 Volt 4 Ampere	24 Volt, 7 Ampere / 12 Volt 4 Ampere	24 Volt, 7 Ampere / 12 Volt 4 Ampere
Total power requirements	16 Watt operational	30 Watt operational	45 Watt operational	52 Watt operational
Uninterrupted Power Supply UPS	-	available	available	-
GSM & WIFI specification				
GSM Channels total	1 Channel	2 Channels for parallel traffic	3 Channels for parallel traffic	4 Channels for parallel traffic
GSM Typ	3G UMTS or 4G LTE	3G UMTS	3G UMTS one Channel supporting 4G LTE	3G UMTS and 4G LTE
Max. upstream speed	5 Mbps or 10 Mbps	25 Mbps	100 Mbps	250 Mbps
Max. downstream speed	5 Mbps or 10 Mbps	25 Mbps	100 Mbps	250 Mbps
additional WAN Ports	1	1	2	2
traveltronic user portal access	yes	yes	yes	yes
Harbour Network access by WIFI	-	integrated	integrated	integrated
Antennas included	3dbi EU conform	3dbi EU conform	3dbi EU conform	3dbi EU conform
optional UPS system (international version only)				
Compatible	-	only for the international Version	only for the international version	only for the international version
Charge Time	-	1.5 hours up to 100%	1.5 hours up to 100%	3 hours up to 100%
Operational Time	-	up to 120 minutes	up to 120 minutes	up to 240 minutes
Voltage input range	-	10-30 Volt	10-30 Volt	10-30 Volt
Battery type	-	OPTIONAL: long-live LIFEPO4	OPTIONAL: long-live LIFEPO4	OPTIONAL: long-live LIFEPO4
optional High Power Antenna Kit 3G & WIFI 2.4 Ghz (international version only)				
Compatible	1+1 High Power Antenna Kit only for the international Version	2+2 High Power Antenna Kit only for the international Version	2+2 High Power Antenna Kit only for the international Version	integrated 4x4 EU conform Antenna Kit High power antennas optional available (NO CE)
WIFI Antenna	1x1 MIMO 2.4 Ghz	2x2 MIMO 2.4 Ghz	2x2 MIMO 2.4Ghz	2x2 MIMO 2.4 and 5 Ghz
Dimensions	1390mm x 122mm x 105mm	2x 1390mm x 122mm x 105mm	2x 1390mm x 122mm x 105mm	RADOME 466 x 500 mm
Weight	2.4kg	2x 2.4kg	2x 2.4kg	15 kg
Frequency	2.35 - 2.55 GHz	2.35 - 2.55 GHz	2.35 - 2.55 GHz	2.35 - 2.55 GHz
Gain	3 dBi	3 dBi	3 dBi	3 dBi
Polarization	Dual Linear	Dual Linear	Dual Linear	Dual Linear
Cross-Pol Isolation	25 dBi Min.	25 dBi Min.	25 dBi Min.	25 dBi Min.
Wind Survivability	125 mph	125 mph	125 mph	125 mph
3G Antenna	1	2	5	8 (integrated)
Dimensions	200mm x 150mm	2x 200mm x 150mm	2x 200mm x 150mm	integrated under Radome
Weight	0.6kg	2x 0.6kg	2x 0.6kg	-
Frequency	1800-2100 MHz (3G, UMTS)	1800-2100 MHz (3G, UMTS)	1800-2100 MHz (3G, UMTS)	800-2400 MHz (4G LTE)
Gain	3 dBi	3 dBi	3 dBi	3 dBi
Wind Survivability	140 mph	140 mph	140 mph	140 mph



### Coverage 2014

