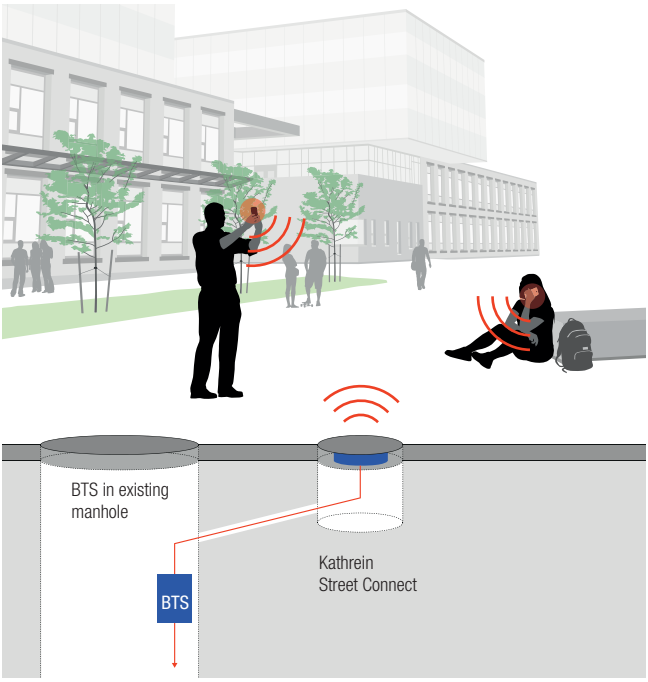
Kathrein Street Connect

MOBILE COMMUNICATION

Revolutionising Data Traffic in Cities

KATHREIN

With the growing demand for high speed data traffic, macro mobile communication cells are at the edge of their capacity limits thus, the additional use of micro cells becomes indispensable. But there is one big challenge: How to obtain sites in open, sensitive areas? To overcome this, Kathrein introduces an innovative solution for mobile communication in city centres: An in-ground antenna with the appearance of a manhole cover blending seamlessly into the existing infrastructure. In order to enhance mobile capacity at hotspots with high data traffic, Kathrein has developed this “Kathrein Street Connect” antenna in collaboration with Swisscom, Switzerland’s leading telecom provider. The antenna is embedded into the ground in the immediate vicinity of an according base station by way of core drilling. The base station can for example be incorporated into existing cable manholes of the landline infrastructure.



Building Blocks of Kathrein Street Connect

- Top cover and frame for the protection of the antenna
- Antenna radiation system in IP 68 casing
- Damping element to absorb vibrations
- Horizontal adjustment element to adapt the orientation of the antenna elements

Top cover

Antenna module with radiation system

Damping and horizontal adjustment element

Top frame

The installation instructions for the cover and frame must be followed carefully.

Electrical Specification

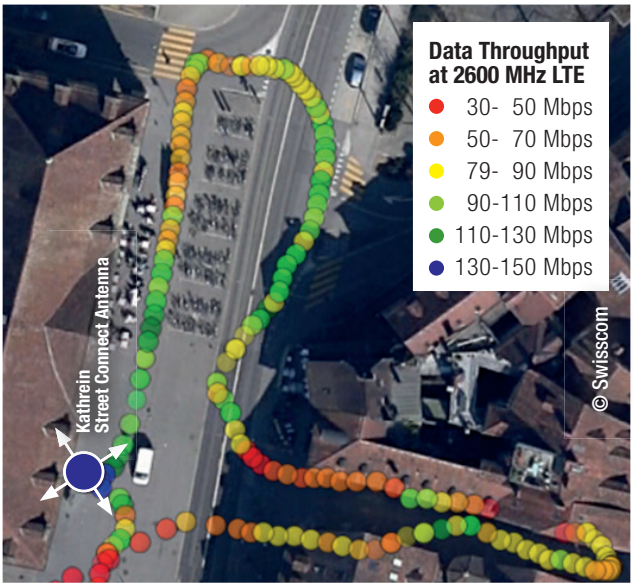
Type No.	80010235
Frequency Range	1695 -2690 MHz
Gain	6-9 dBi
Horizontal Pattern	Quasi Omni, Max. deviation from circularity approx. ±6 dB
Vertical Pattern	Several main lobes above ground level
Cross-Polar Isolation	> 27 dB
Max. effective power per port	20 W (at 50°C ambient temperature)
VSWR	< 1.5
Passive Intermodulation	< -153 dBc (2 x 43 dBm carrier)
Polarisation	Dual vertical (2x2 MIMO)
Connector	Bottom, 2 x 4.3-10 female
Top Frame Outer / Inner Diameter / Height	425 / 315 / 100 mm

The optics of the antenna blend seamlessly into the cityscape

Live Network in Bern, Switzerland

Test measurements have been made in a live network by Swisscom in Bern, Switzerland for LTE 2x2 at 1800 MHz and 2600 MHz. These measurements verify:

- Extensive coverage area
- Very strong 2x2 MIMO performance
- High data throughput (in average > 90 Mbps)



Please ask your Kathrein contact for further information about the product, trials or installation details.

Find out more about Kathrein Street Connect in our video.

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