

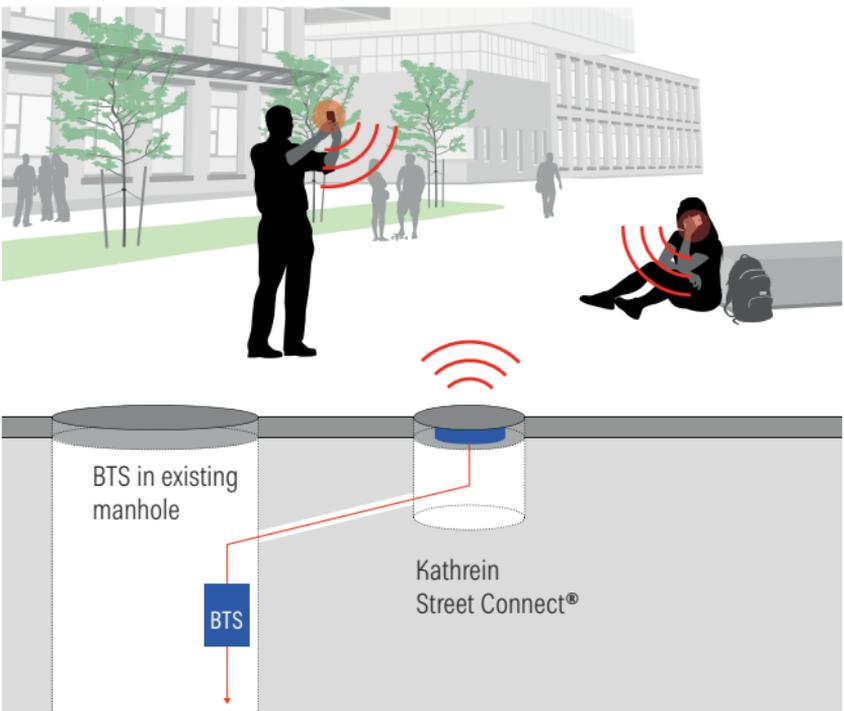
Kathrein Street Connect®

Revolutionising Data Traffic in Cities



Introduction

With the growing demand for high-speed data traffic, macro mobile communication cells are at the edge of their capacity limits. The additional use of micro cells becomes therefore indispensable. There is, however, one big challenge: how to obtain sites in open, sensitive areas? To overcome this, Kathrein provides 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 hot spots with high data traffic, Kathrein has developed the “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 a 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

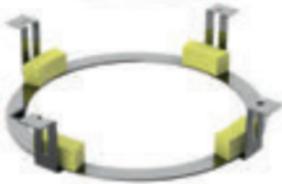
- Top cover and frame for the protection of the antenna
- Antenna radiation system in IP 68 casing
- Damping element to absorb vibrations
- Horizontal adjustment element to adapt the orientation of the antenna elements



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.

Specification

Type No.	80010235
Frequency range [MHz]	1695–2690
Gain [dbi]	6
Horizontal pattern	Quasi omni, max. deviation from circularity approx. ± 6 dB
VSWR	< 1.7
Passive intermodulation [dBc]	< -153 (2 x 43 dBm carrier)
Polarisation	Dual vertical (2 x 2 MIMO)
Connector	Bottom, 2 x 4.3-10 female
Top cover diameter/height [mm]	375/32

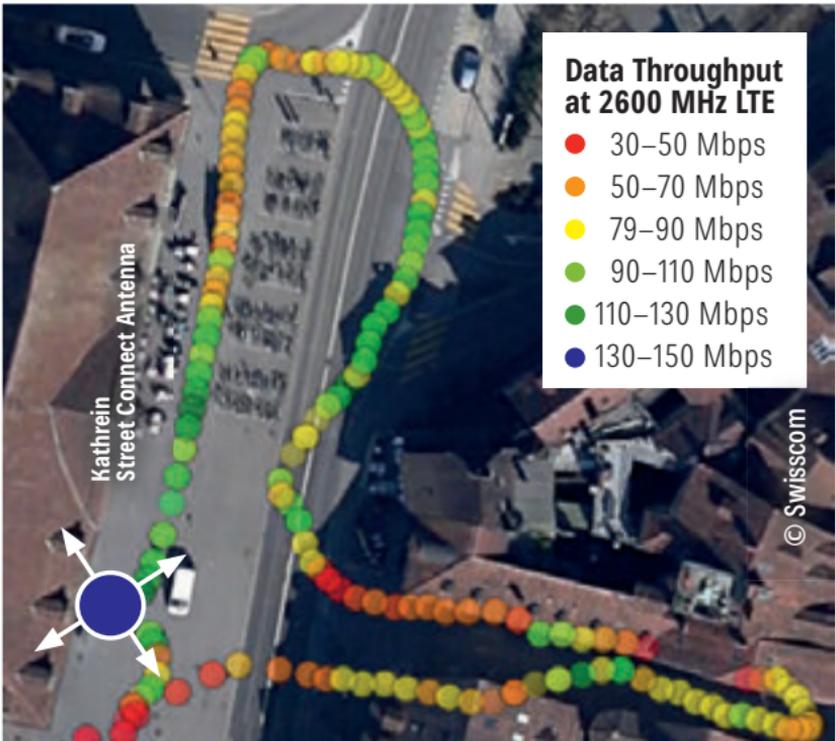


The optics of the antenna blend seamlessly into the cityscape

Proof of Concept

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

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



Please ask your Kathrein contact for further information about the product and installation details.

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