



CITYVAL

Urban and Airport passenger transport solutions

SIEMENS

Airport People Mover (APM)

Very high system availability (> 99.8%) and passengers safety levels

Paris Orly Airport: Airport access + terminal interconnection



- 1 line: 7.2 km
- 16 vehicles Val 206
- Commissioning: 1991
- 2.8 million pass./year
- Synchronization with line RER B

AVAILABILITY: 99.8%

Chicago O'Hare International Airport: terminals + car park access



- 1 line: 4.3 km
- 15 vehicles Val 256
- Commissioning: 1993
- Operating: 7/7 days - 24/24 hours
- 12.5 million pass./year

AVAILABILITY: 99.9%

Paris Charles de Gaulle Airport: terminals interconnection + airside



- Line 1: 3.3 km
- 14 vehicles Val 208
- LISA: 0.6 km
- 6 vehicles Val 208
- Operating: 7/7 days - 24/24 hours
- Line 1 commissioning: April 2007
- LISA commissioning: June 2007

AVAILABILITY: 99.9%

Torino Automated Guidway Transit (AGT) - Italy

Key operational datas

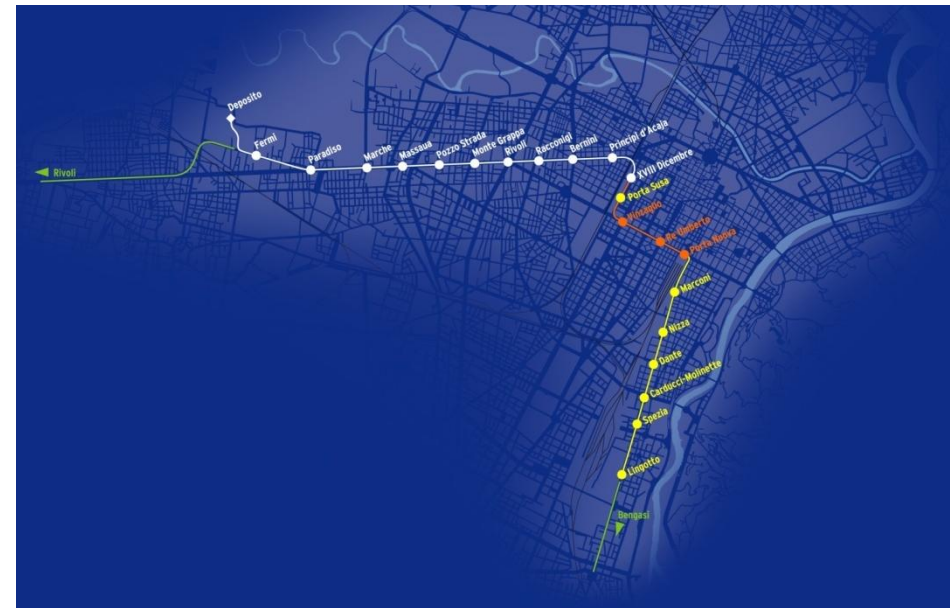
- Average commercial speed: ~ 30 km/h
- Trip duration: 2905 s (~ 49')
- Design train interval: 69 s (demonstrated)
- System design capacity: 23 000 PPHPD (6p/m²)
- Fleet size (2 married pairs): 29 (24 + 1 + 4)
- Vehicle capacity (6p/m²): 440 passengers
- Operational train interval: 122 s
- Dwell time on line: 12 s
- Dwell time end station: 25s
- Max capacity (4p/m²): 9440 PPHPD
- Max capacity (6p/m²): 13000 PPHPD
- Availability > 99.6%



Torino AGT- Italy

Key operational datas

- Feb 2006: 7.2 km, 11 stops
 - Oct 2007: + 2.3 km, + 4 stops
 - March 2011: +3.6 km, + 6 stops
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- 2006 : 7.900.000 passengers
 - 2007 : 12.400.000 passengers
 - 2008 : 20.500.000 passengers
 - 2009 : 22.000.000 passengers
 - 2010 : 22.000.000 passengers
 - 2011 : 34.400.000 passengers
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- 2013: 160.000 passengers/day



A photograph of a white and green AGT train crossing a cable-stayed bridge in Rennes, France. The bridge has tall, white, A-frame pylons and black cables. The train is moving from left to right. The background shows a clear blue sky and some greenery.

Rennes AGT – France

Line a : the SIEMENS VAL system

Train characteristics:

- Length: 26.14 m (two cars of 13 m)
- Width: 2.08 m
- Seating capacity 50 and standing passengers 108

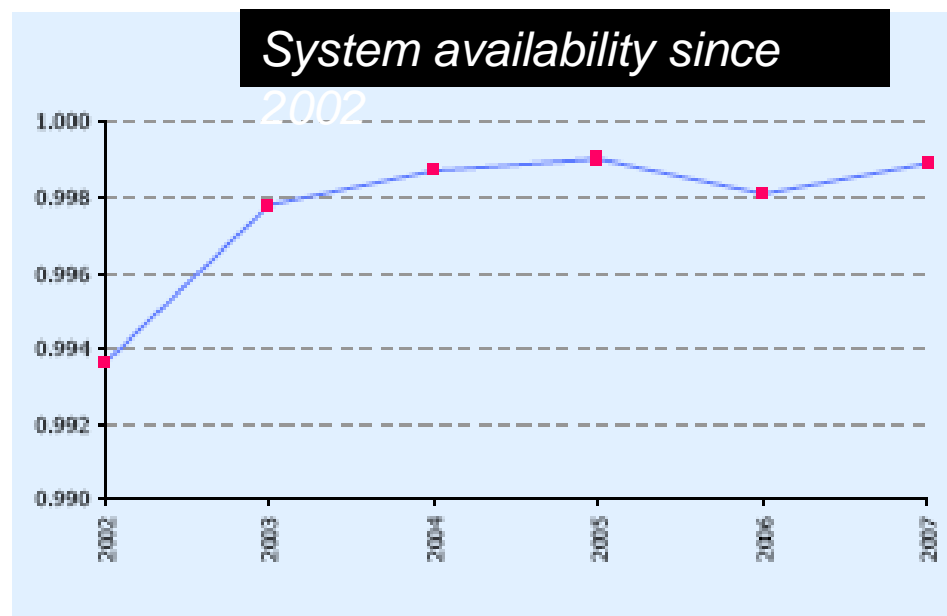
Characteristics of Rennes Line A

- Overall length: 9.4 km (commercial length 8.5 km)
- Journey time from terminus terminus: 17 minutes
- Operating speed: 32 km/h
- Train length: 26 meters
- 15 stations
- 30 trains
- Relay car parks: $4 \times 400 = 1600$ spaces

Rennes Line A AGT

Leading figures

- Min / max frequency: 100 s / 4 min
- Electricity consumption: 10 961 000 kWh (10 485 000 on average for a tram line)
- Consumption per passenger: 0.38 kWh / pgr (same as tram line)
- Availability: 99.9 %
- Observed traffic: 130,000 journeys / day



Availability of the VAL system

Total operating time	7102 hours 24 min.
Total perturbation time >4 min	7 hours 37 min
System availability factor	99.89%

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