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## JOLT CORPORATE LECTURE

### FULL THROUGHPUT WIRELESS ATM

Presented by : Dr. David B. Medved, President

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# UWIN Features

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- ◆ Wide bandwidth DC-155 Mbps
- ◆ Protocol independent (no memory)
- ◆ Easy Interface to existing networks & methods
- ◆ Pioneer building to building
- ◆ Security - almost impossible to eavesdrop

# Fade margin calculation

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- ◆ Loss Factor = L.F. =  $10 \log A_B/A_R$  [dB]
  - $A_B$  = Beam area ;  $A_R$  = Receiver area
  - $A_B \sim R^2 O_H O_V$  where
  - $O_H$  = azimuth angle ,  $O_V$  = elevation angle ,  $R$  = distance
  
- ◆ Loss Budget = L.B. =  $10 \log P_B/ P_t$  [dB]
  - $P_B$  = Power in the beam
  - $P_t$  = Threshold power
  
- ◆ Fade Margin = F.M. = L.F. - L.B. [dB]

# UWIN for ATM 155 Mb/s

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- ◆ The system works on the physical layer and is protocol transparent
- ◆ Applications : ATM-155, OC-3, STS-3, STM-1, SDH-1
- ◆ Data Rate : 155.52 Mb/s
- ◆ Minimum pulse width : 6.43 ns
- ◆ All weather distance : 230 meters (30dB/Km attenuation)
- ◆ Operating range : 60 to 500 meters

# UWIN for ATM 155 Mb/s (continued)

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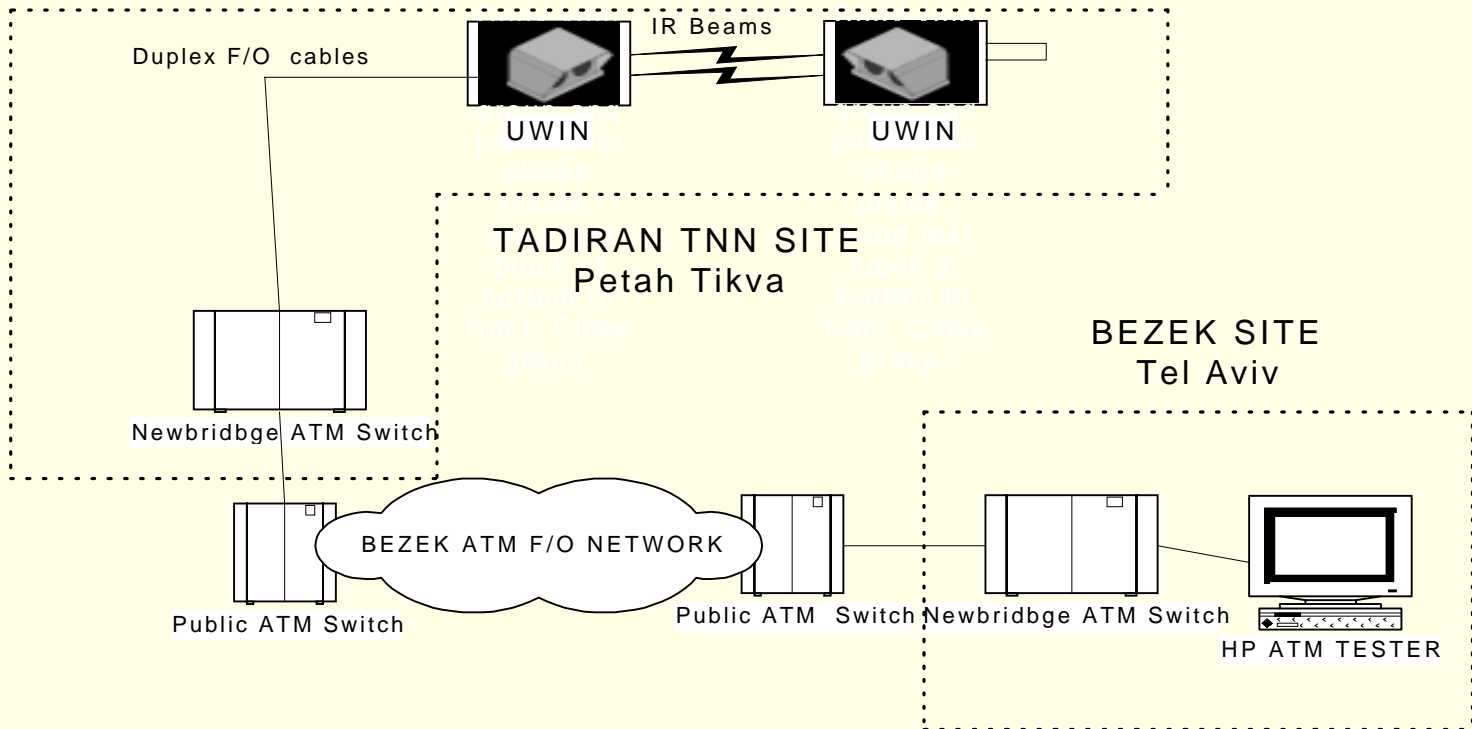


- ◆ Optical transmitter
  - LED Based
  - Wavelength : 850 nm
  - Rise & Fall times : Maximum 3.2 ns
  - Average radiated power : 6mW
- ◆ F/O interface
  - Type SC or ST
  - Wavelength : 1300 nm or 850 nm
- ◆ Temperature range
  - -20 to +50 degrees centigrade

# Beta-site test at TNN



UWIN2107 in the ATM Magnet Network



# Beta-site test at A.R.M.T

