

The following pages contain path study details for the proposed base station and CPE test locations to the following locations:

Call Sign, File No.: ..... E6241, SESMOD2000112902270

Location ..... SAN RAMON, CA: 37-45-40, 121-47-57

Call Sign, File No.: ..... KA232, SESLIC1997103001576

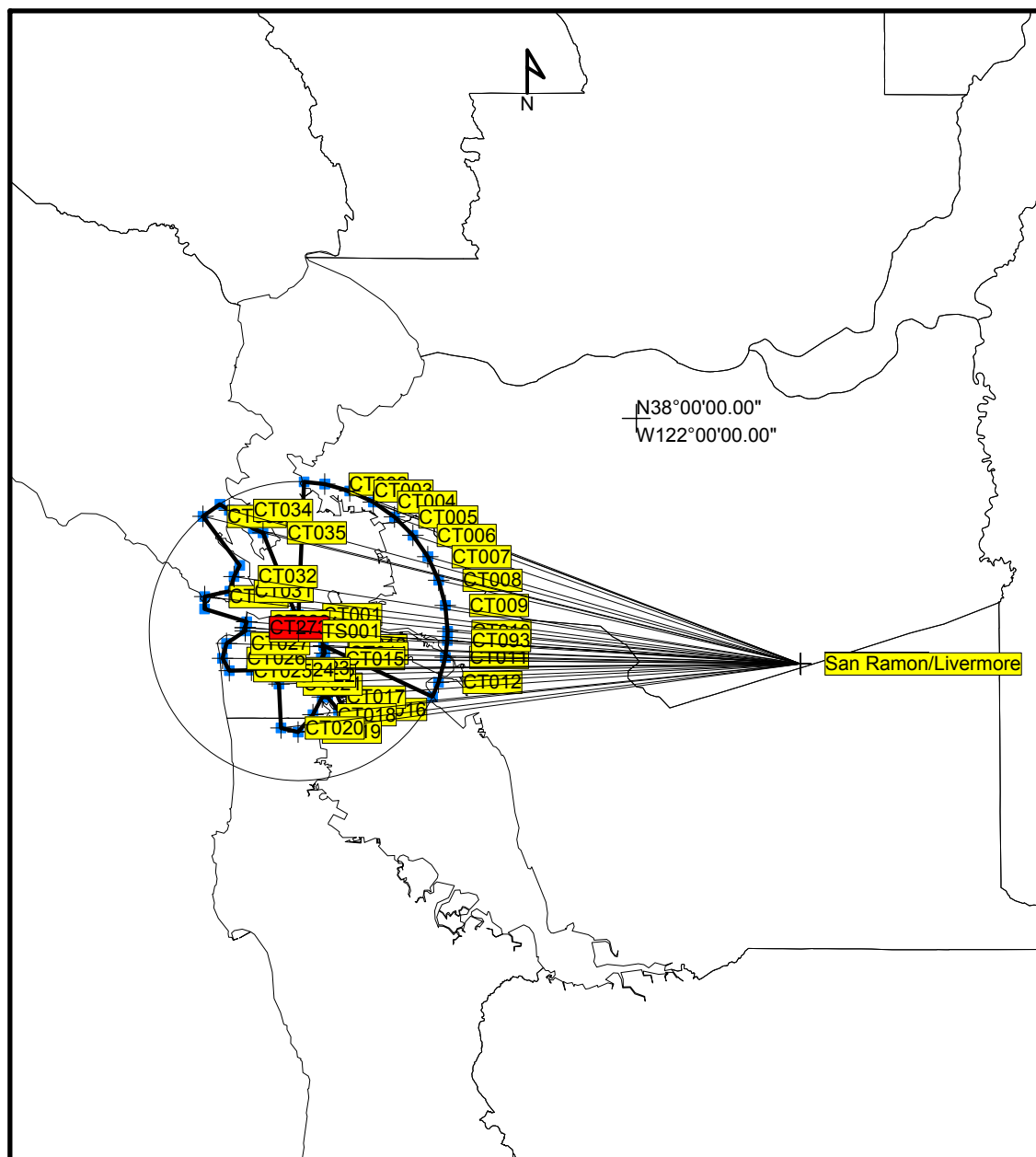
Location ..... LIVERMORE, CA: 37-45-40, 121-47-53

Call Sign, File No.: ..... KA86, SESMOD2000022200265

Location ..... MOUNTAIN HOUSE, CA: 37-45-2, 121-35-39

Call Sign, File No.: ..... KA206, SESMOD2000022200272

Location ..... MOUNTAIN HOUSE, CA: 37-45-1, 121-35-38



EDX SignalPro™: SANF37c.map

Prop. model: Longley-Rice v1.2.2

Time: 50.0% Loc.: 50.0%

Prediction Confidence Margin: 0.0dB

Climate: Continental Temperate

Land use (clutter): EDX-ASCII land use (clutter) data format

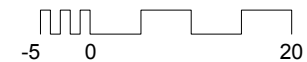
Atmospheric Abs.: none

K Factor: 1.333

RX Antenna - Type: OMNI

Height: 10.0 m AGL    Gain: -2.15 dBd

KILOMETERS



## San Francisco

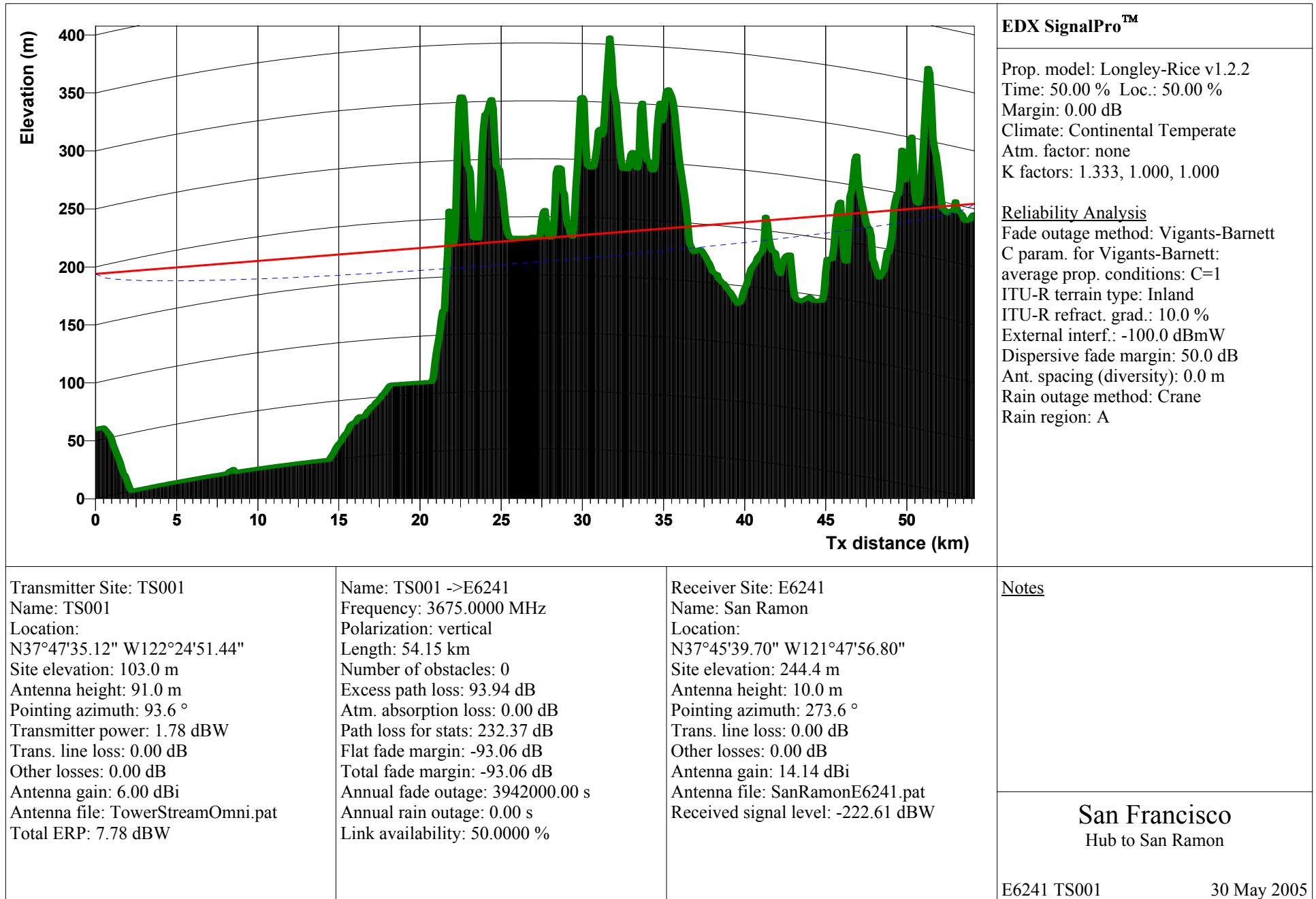
CT to San Ramon/Livermore

E6241/KA232 Map

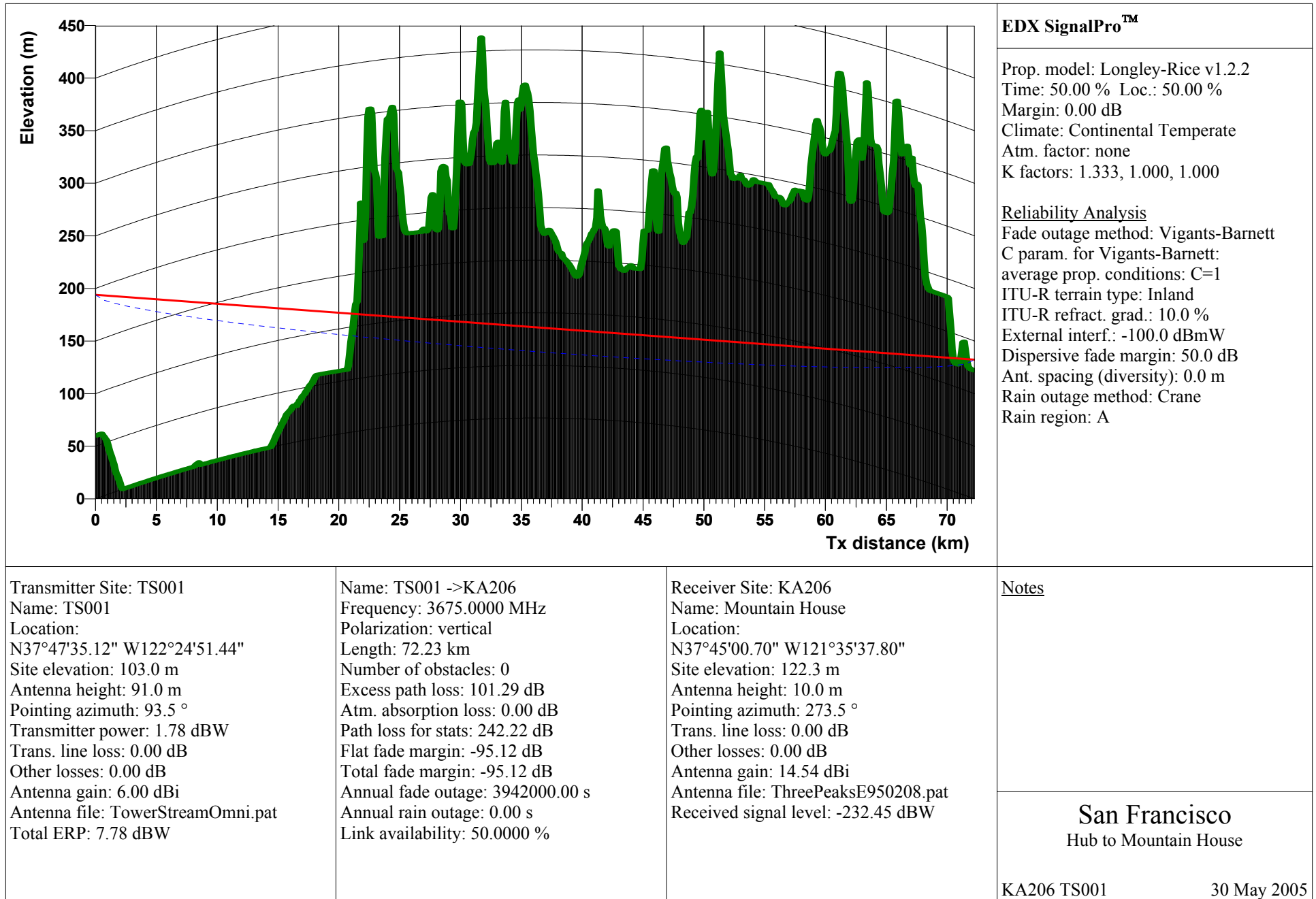
30 May 2005

San Ramon/Livermore

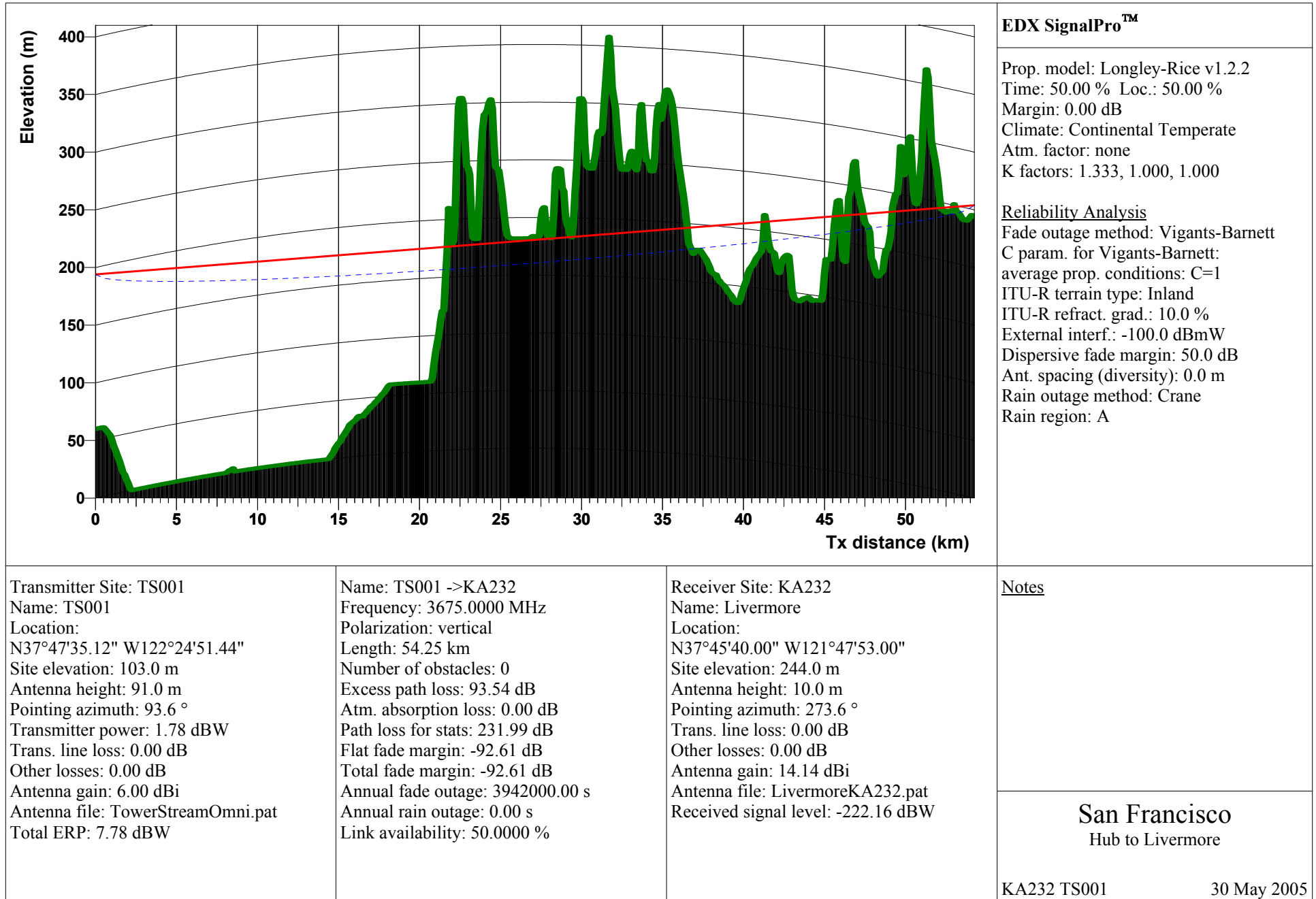
# Link Study: trn/TS001-E6241.trn



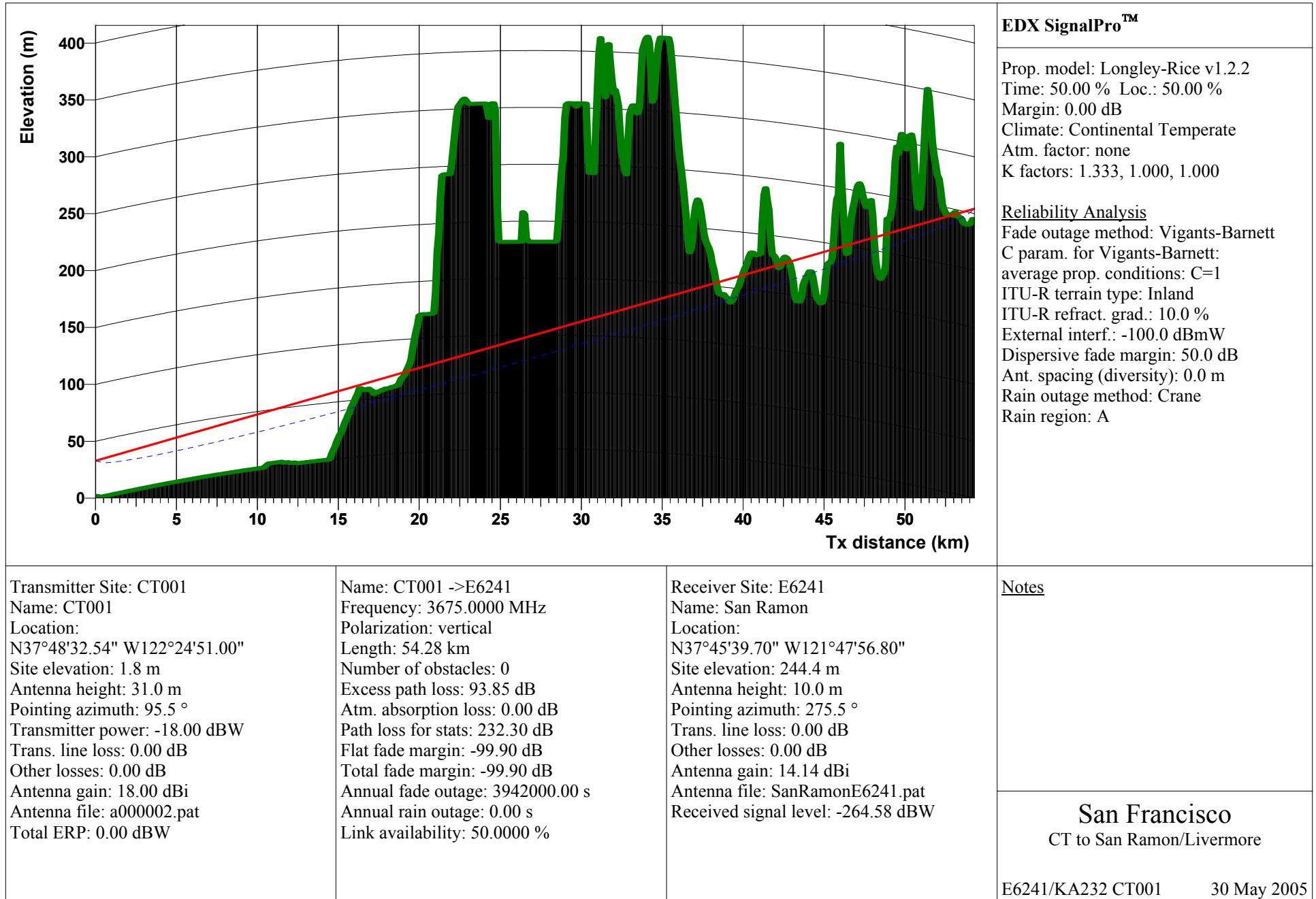
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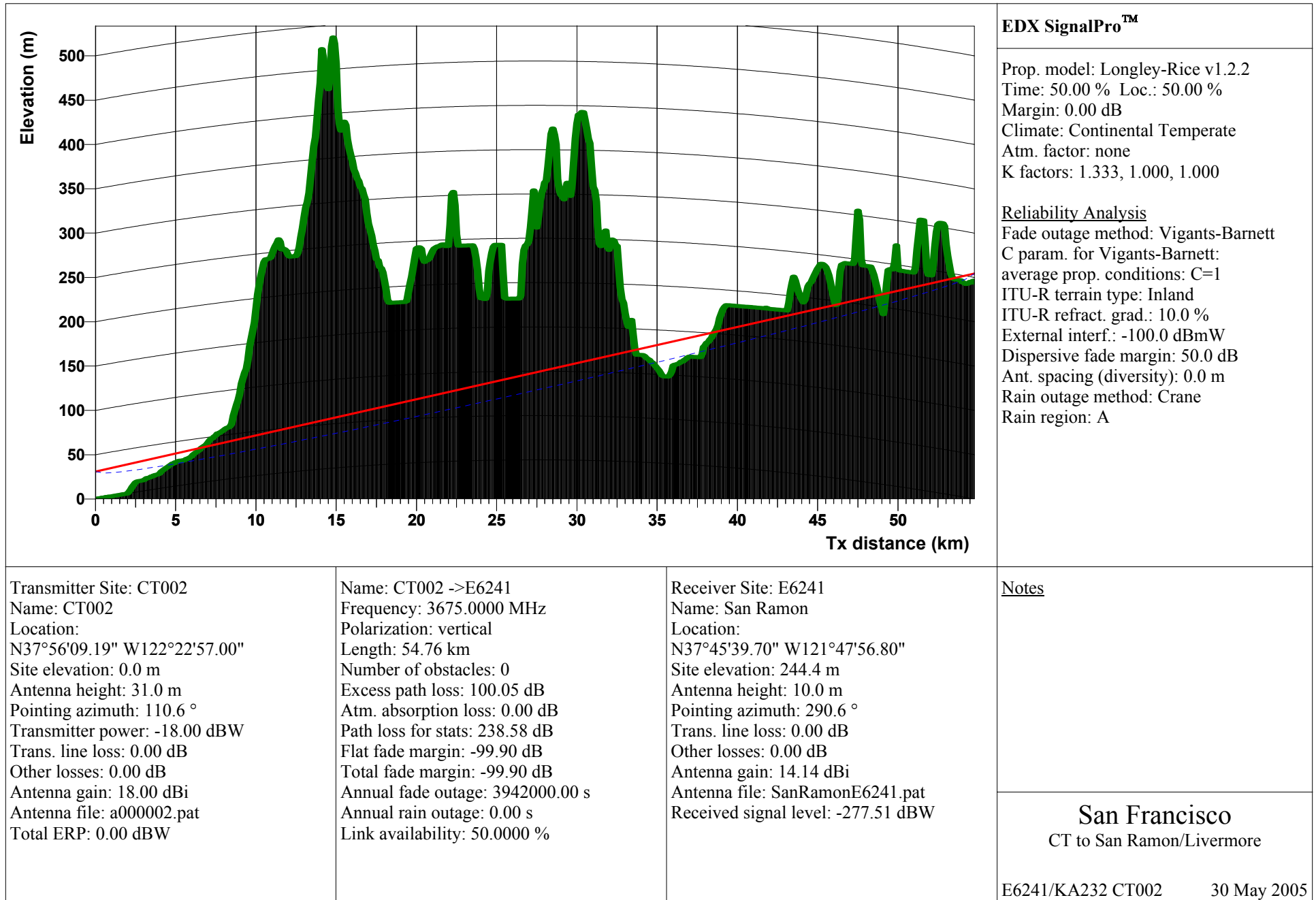


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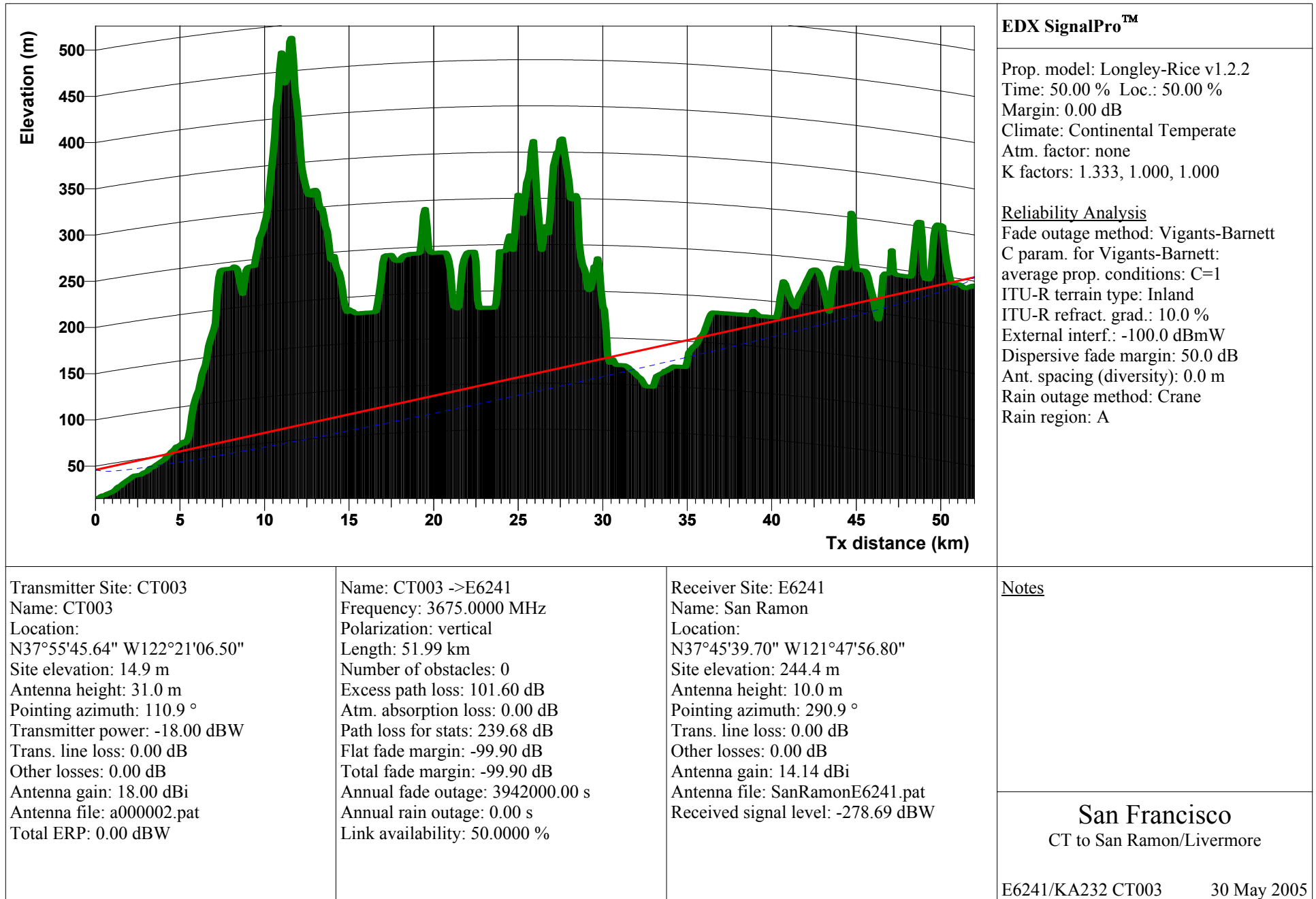


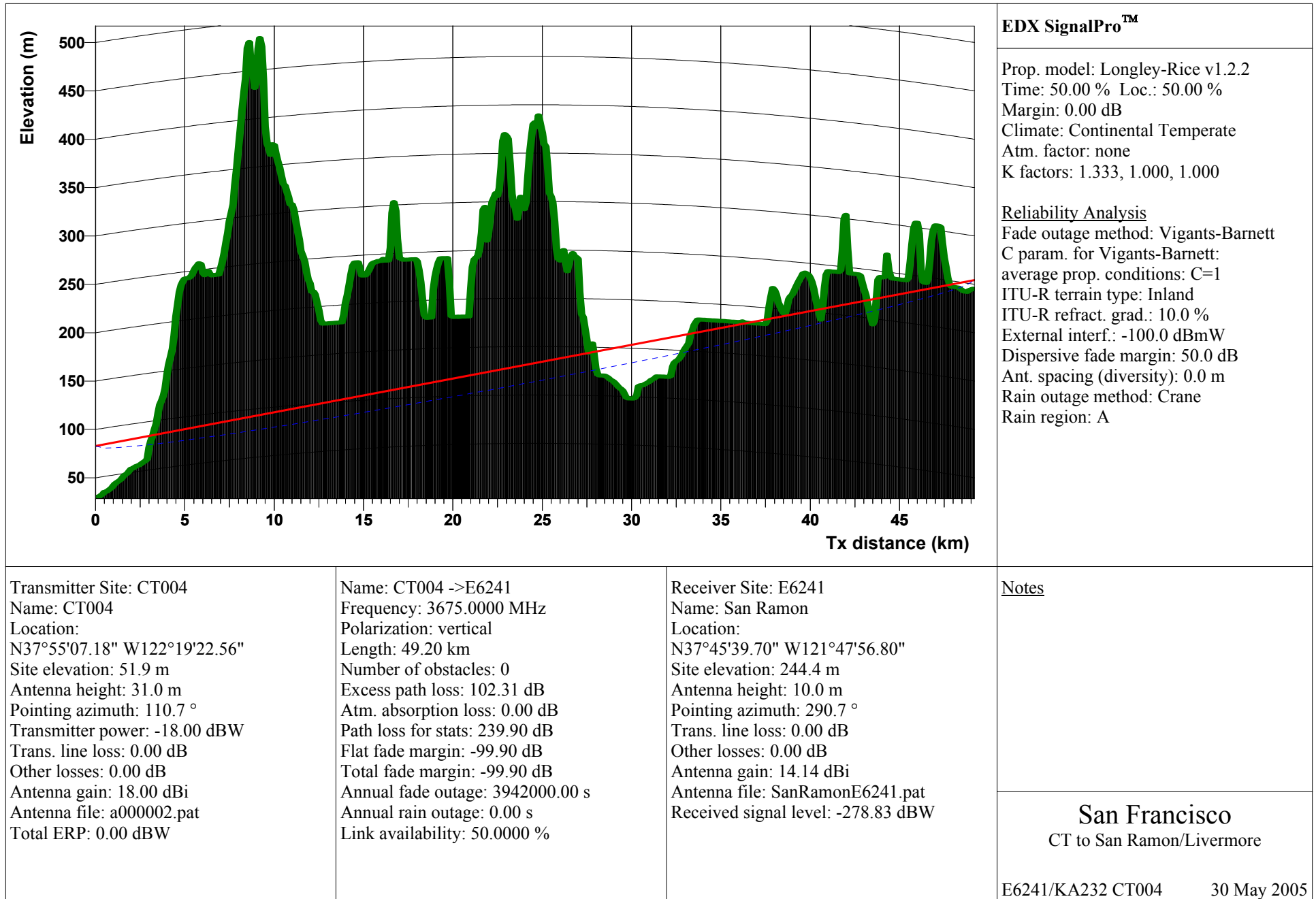
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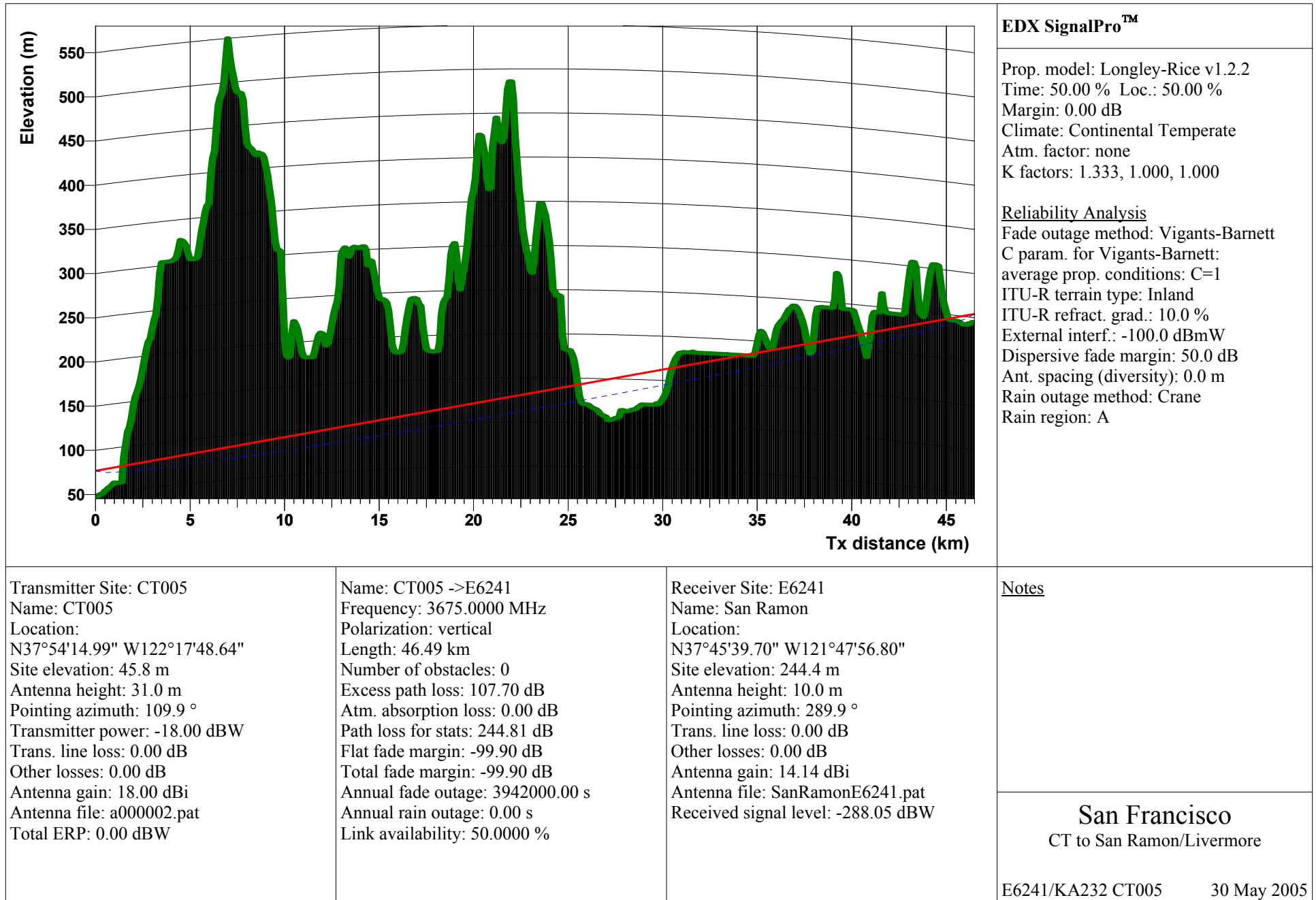


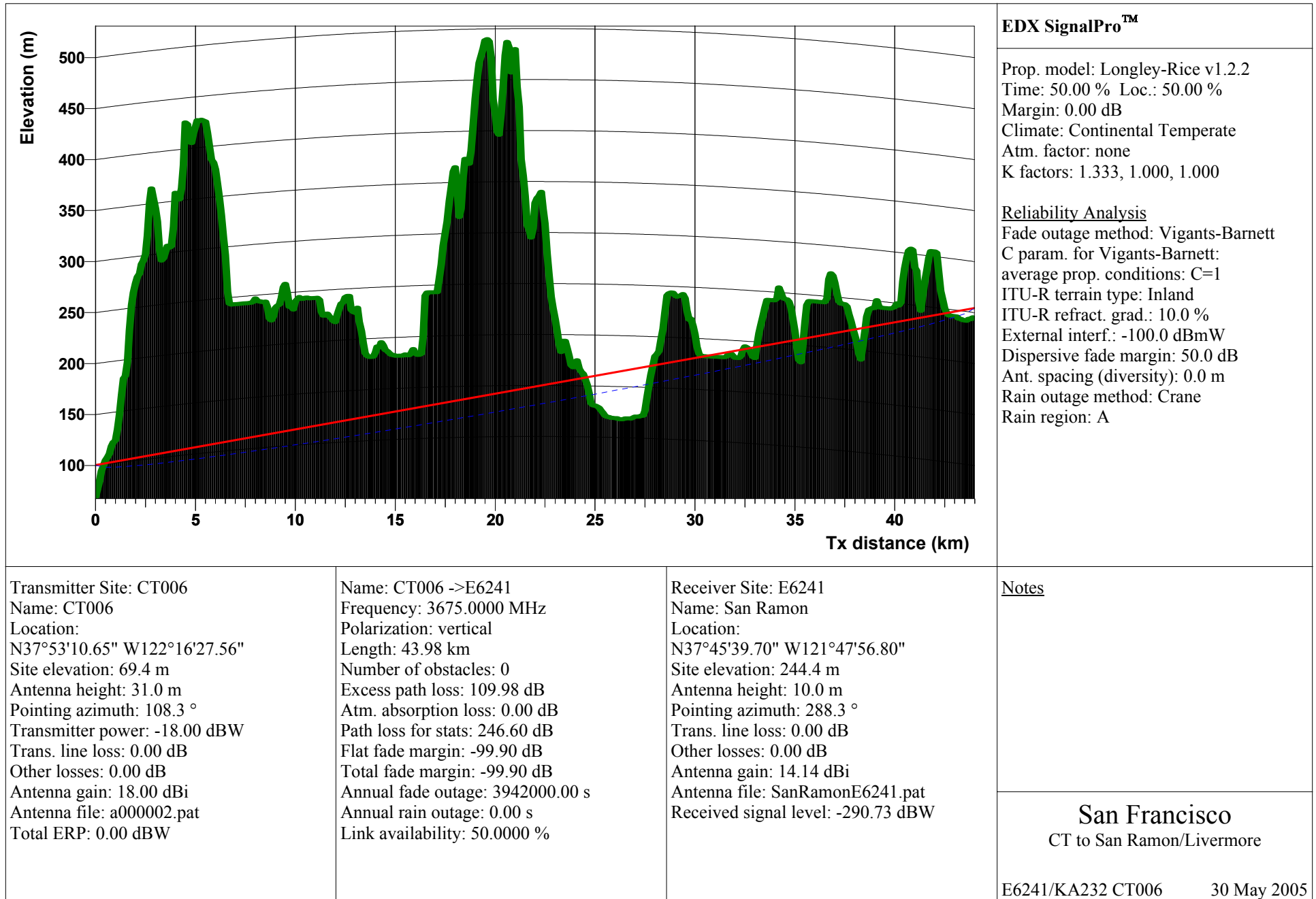
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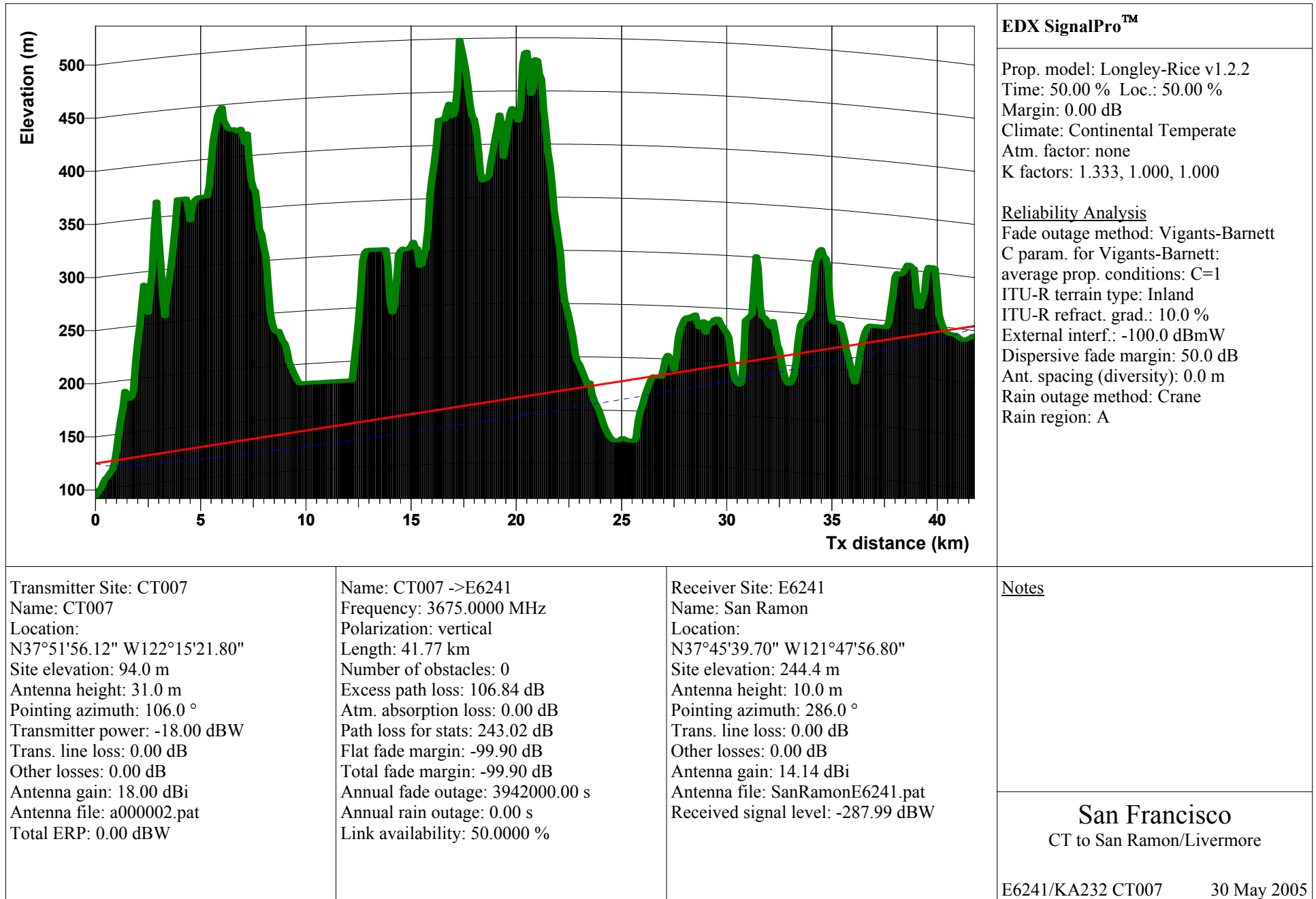


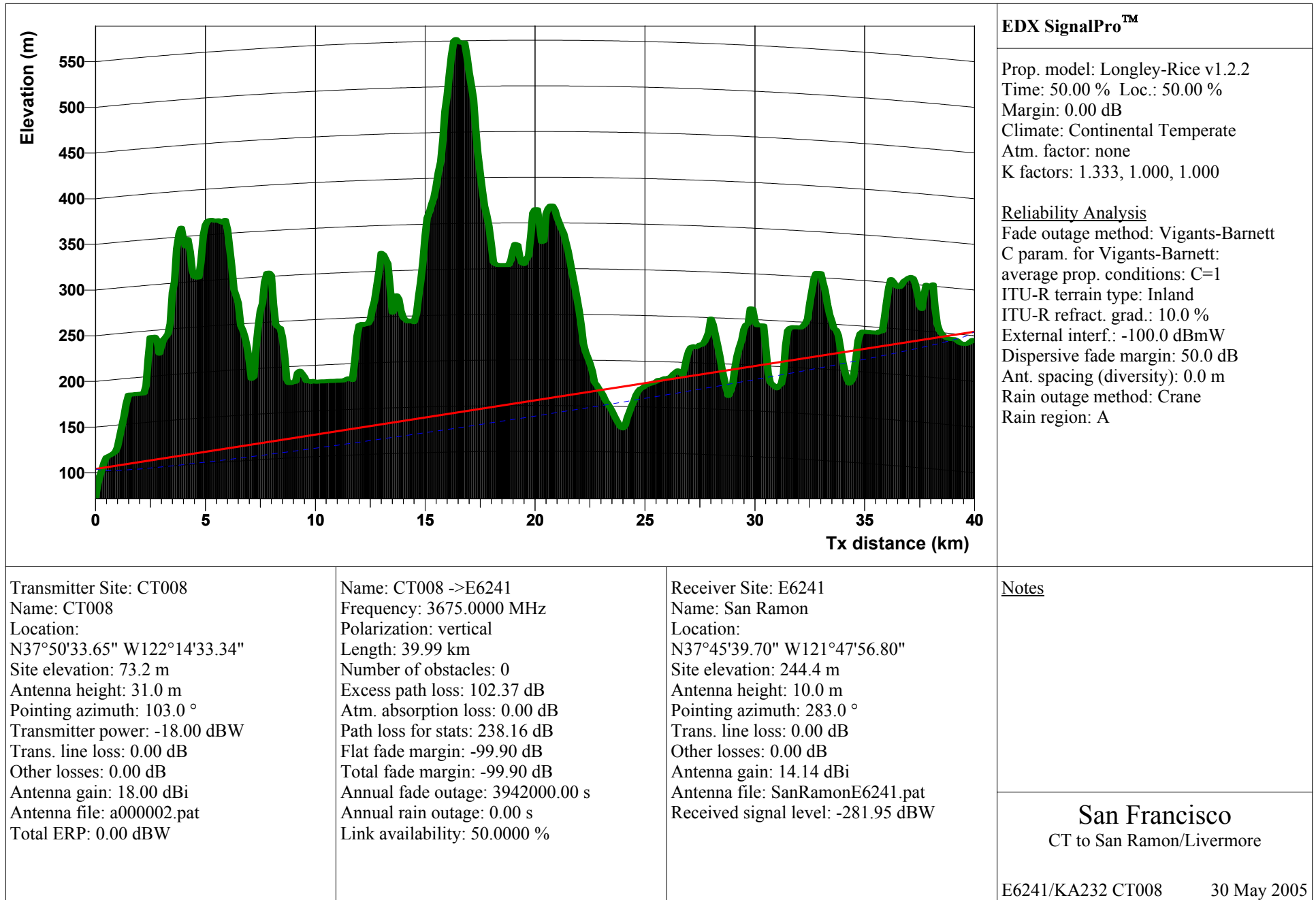
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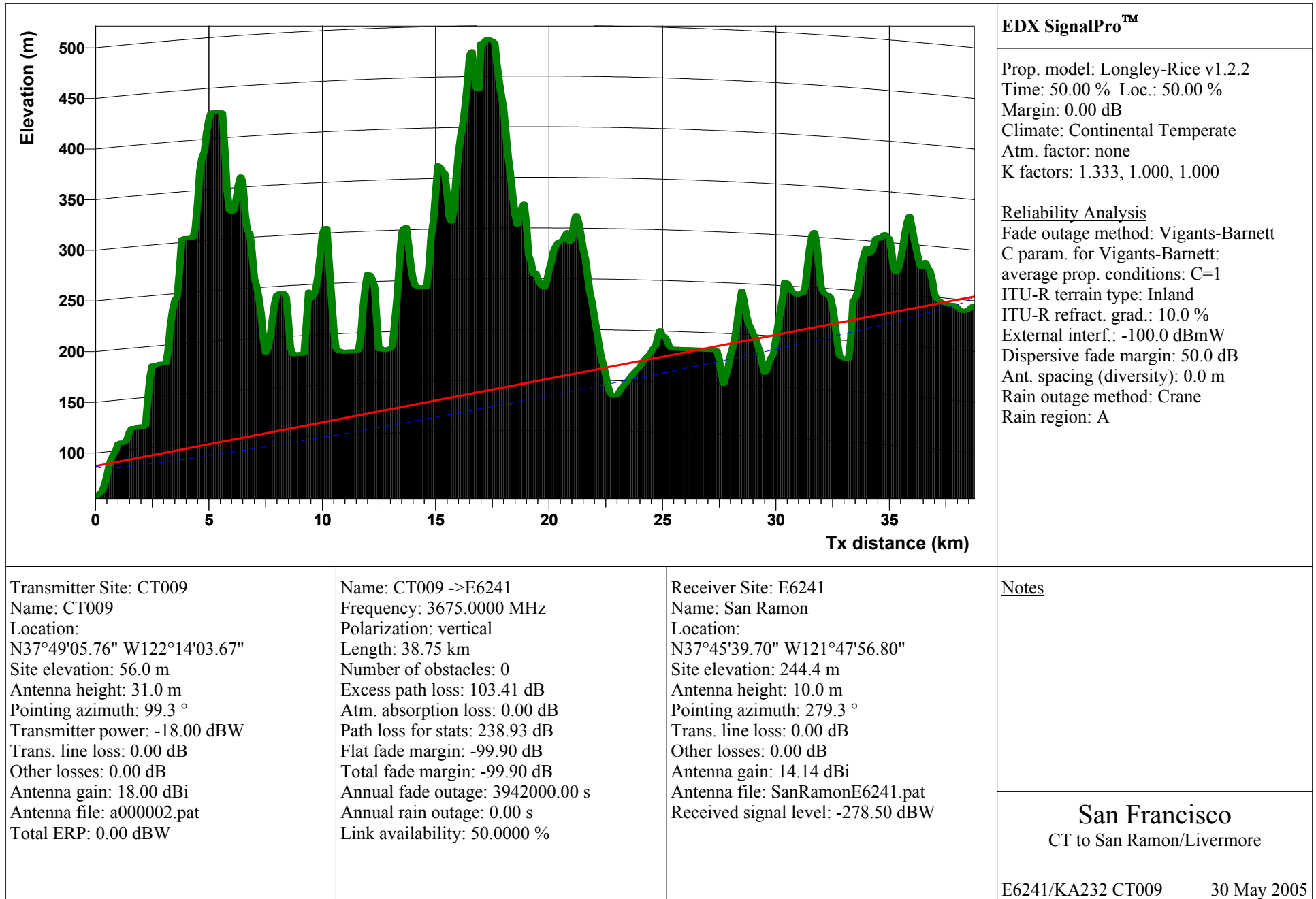


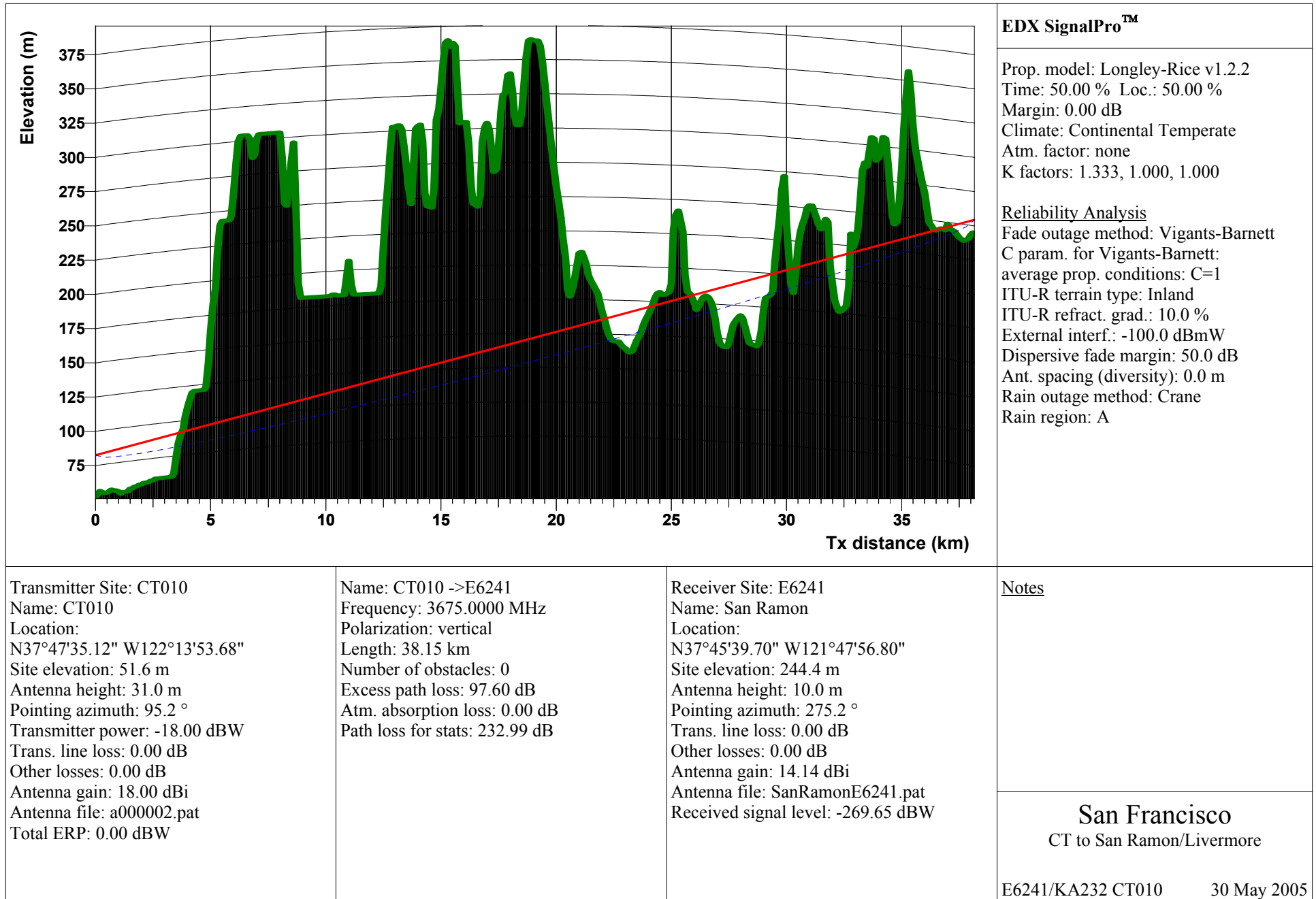
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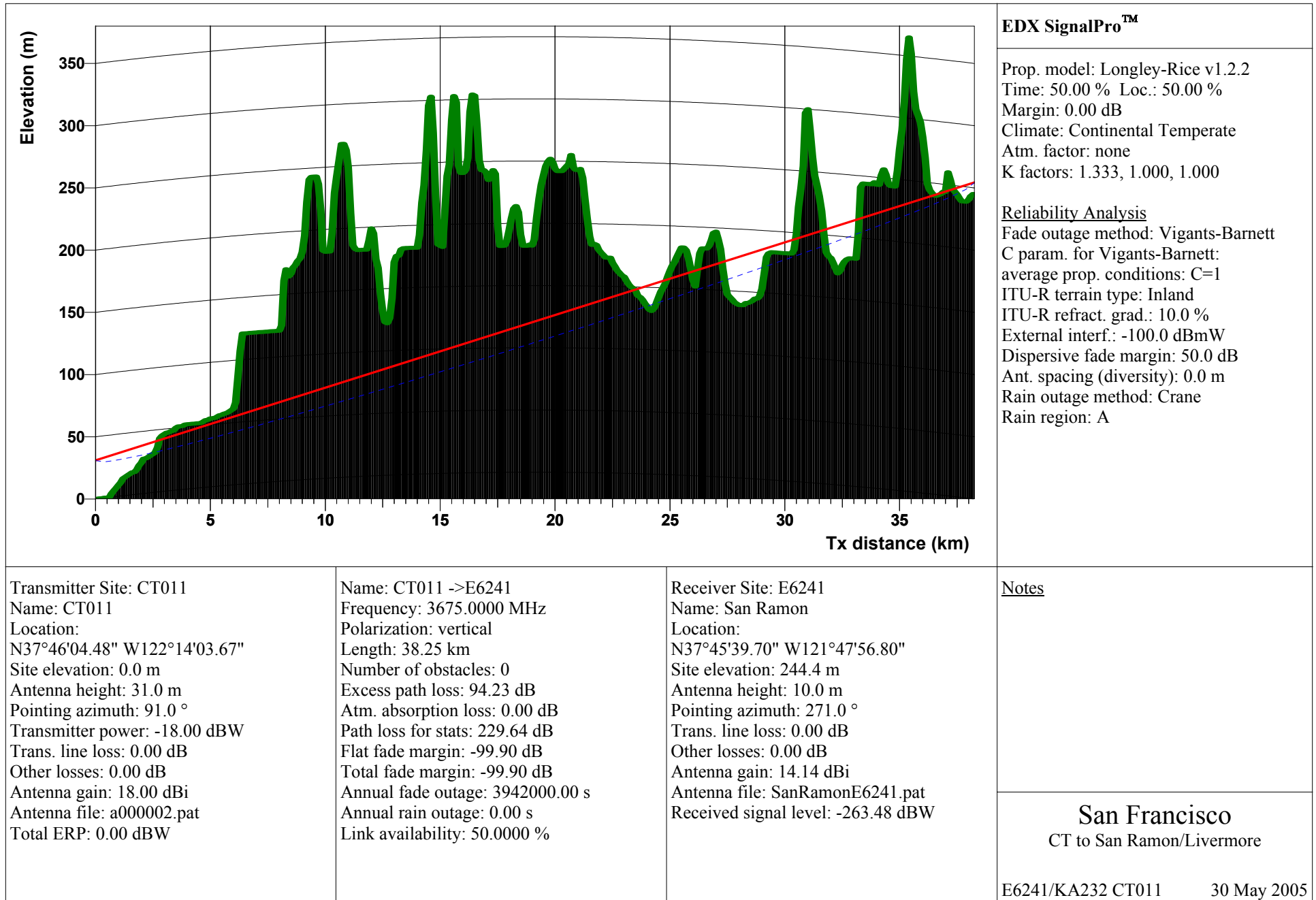




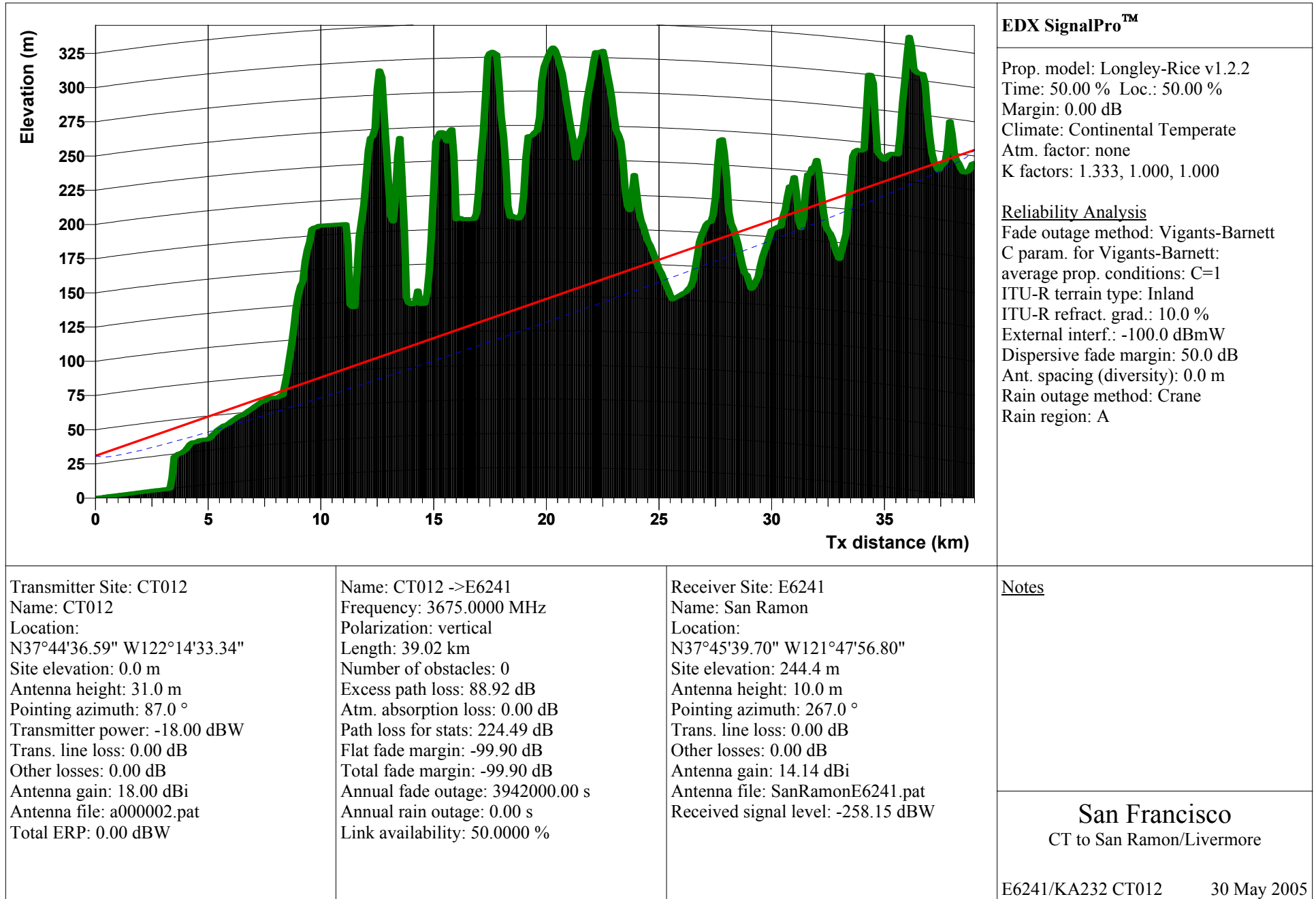
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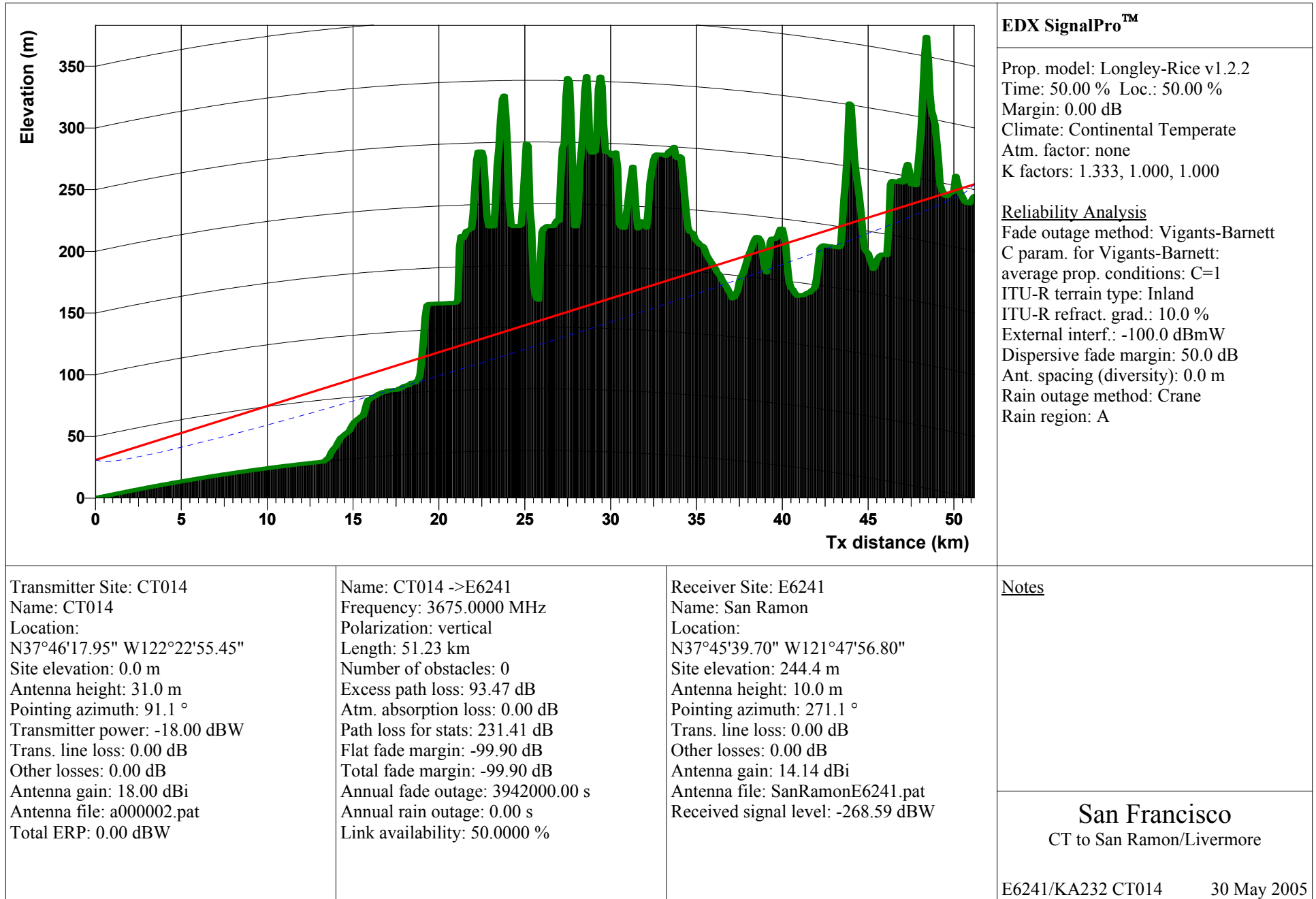


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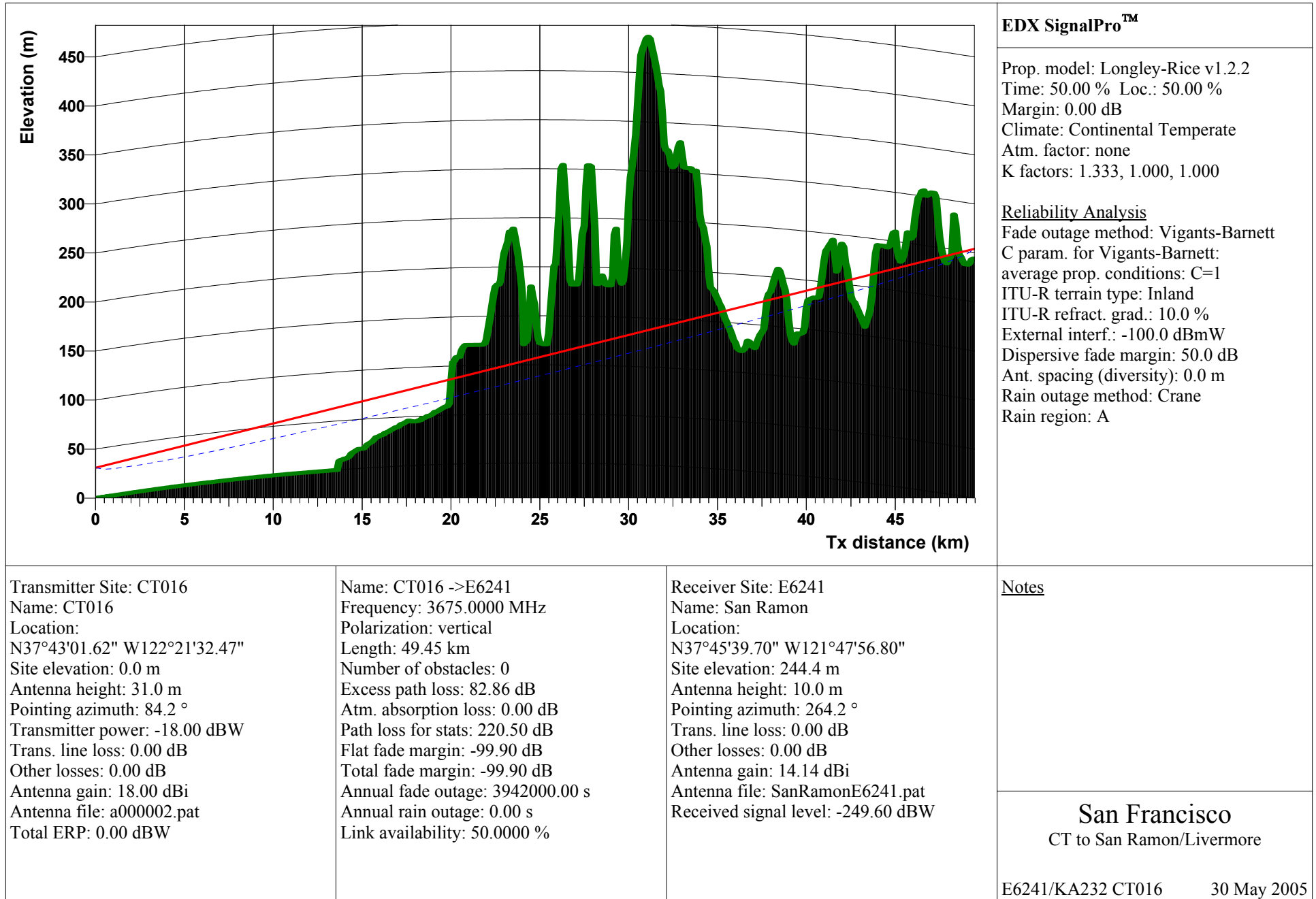
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|                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                  | <b>EDX SignalPro™</b><br><br>Prop. model: Longley-Rice v1.2.2<br>Time: 50.00 % Loc.: 50.00 %<br>Margin: 0.00 dB<br>Climate: Continental Temperate<br>Atm. factor: none<br>K factors: 1.333, 1.000, 1.000<br><br><u>Reliability Analysis</u><br>Fade outage method: Vigants-Barnett<br>C param. for Vigants-Barnett:<br>average prop. conditions: C=1<br>ITU-R terrain type: Inland<br>ITU-R refract. grad.: 10.0 %<br>External interf.: -100.0 dBmW<br>Dispersive fade margin: 50.0 dB<br>Ant. spacing (diversity): 0.0 m<br>Rain outage method: Crane<br>Rain region: A |
| Transmitter Site: CT013<br>Name: CT013<br>Location:<br>N37°46'44.23" W122°23'00.36"<br>Site elevation: 0.0 m<br>Antenna height: 31.0 m<br>Pointing azimuth: 92.0 °<br>Transmitter power: -18.00 dBW<br>Trans. line loss: 0.00 dB<br>Other losses: 0.00 dB<br>Antenna gain: 18.00 dBi<br>Antenna file: a000002.pat<br>Total ERP: 0.00 dBW | Name: CT013 ->E6241<br>Frequency: 3675.0000 MHz<br>Polarization: vertical<br>Length: 51.37 km<br>Number of obstacles: 0<br>Excess path loss: 92.94 dB<br>Atm. absorption loss: 0.00 dB<br>Path loss for stats: 230.91 dB<br>Flat fade margin: -99.90 dB<br>Total fade margin: -99.90 dB<br>Annual fade outage: 3942000.00 s<br>Annual rain outage: 0.00 s<br>Link availability: 50.0000 % | Receiver Site: E6241<br>Name: San Ramon<br>Location:<br>N37°45'39.70" W121°47'56.80"<br>Site elevation: 244.4 m<br>Antenna height: 10.0 m<br>Pointing azimuth: 272.0 °<br>Trans. line loss: 0.00 dB<br>Other losses: 0.00 dB<br>Antenna gain: 14.14 dBi<br>Antenna file: SanRamonE6241.pat<br>Received signal level: -268.74 dBW | <u>Notes</u><br><br><br><div style="text-align: center;"> <h2>San Francisco</h2> <p>CT to San Ramon/Livermore</p> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                  | E6241/KA232 CT013      30 May 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

# Link Study: trn/CT014-E6241.trn

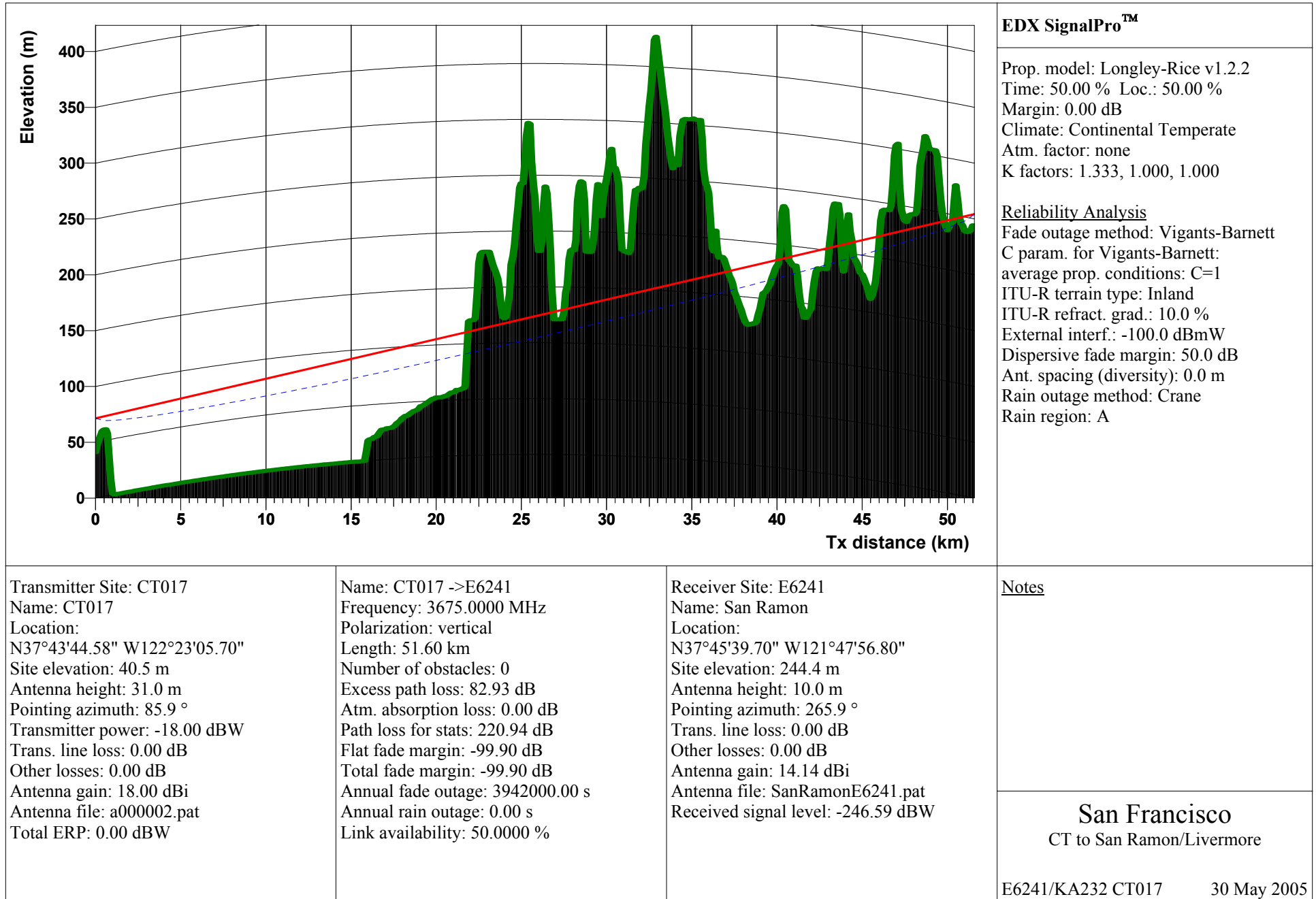


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|                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                           | <b>EDX SignalPro™</b><br><br>Prop. model: Longley-Rice v1.2.2<br>Time: 50.00 % Loc.: 50.00 %<br>Margin: 0.00 dB<br>Climate: Continental Temperate<br>Atm. factor: none<br>K factors: 1.333, 1.000, 1.000<br><br><u>Reliability Analysis</u><br>Fade outage method: Vigants-Barnett<br>C param. for Vigants-Barnett:<br>average prop. conditions: C=1<br>ITU-R terrain type: Inland<br>ITU-R refract. grad.: 10.0 %<br>External interf.: -100.0 dBmW<br>Dispersive fade margin: 50.0 dB<br>Ant. spacing (diversity): 0.0 m<br>Rain outage method: Crane<br>Rain region: A |
| Transmitter Site: CT015<br>Name: CT015<br>Location:<br>N37°45'59.15" W122°23'09.97"<br>Site elevation: 0.3 m<br>Antenna height: 31.0 m<br>Pointing azimuth: 90.5 °<br>Transmitter power: -18.00 dBW<br>Trans. line loss: 0.00 dB<br>Other losses: 0.00 dB<br>Antenna gain: 18.00 dBi<br>Antenna file: a000002.pat<br>Total ERP: 0.00 dBW | Name: CT015 ->E6241<br>Frequency: 3675.0000 MHz<br>Polarization: vertical<br>Length: 51.57 km<br>Number of obstacles: 0<br>Excess path loss: 93.79 dB<br>Atm. absorption loss: 0.00 dB<br>Path loss for stats: 231.79 dB<br>Flat fade margin: -99.90 dB<br>Total fade margin: -99.90 dB<br>Annual fade outage: 3942000.00 s<br>Annual rain outage: 0.00 s<br>Link availability: 50.0000 % | Receiver Site: E6241<br>Name: San Ramon<br>Location:<br>N37°45'39.70" W121°47'56.80"<br>Site elevation: 244.4 m<br>Antenna height: 10.0 m<br>Pointing azimuth: 270.5 °<br>Trans. line loss: 0.00 dB<br>Other losses: 0.00 dB<br>Antenna gain: 14.14 dBi<br>Antenna file: SanRamonE6241.pat<br>Received signal level: -266.70 dBW                                                                                                                                                                                                                                         |
| <div>Notes</div> <div>San Francisco</div> <div>CT to San Ramon/Livermore</div>                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <div>E6241/KA232 CT015</div> <div>30 May 2005</div>                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

# Link Study: trn/CT016-E6241.trn



# Link Study: trn/CT017-E6241.trn



## EDX SignalPro™

Prop. model: Longley-Rice v1.2.2  
 Time: 50.00 % Loc.: 50.00 %  
 Margin: 0.00 dB  
 Climate: Continental Temperate  
 Atm. factor: none  
 K factors: 1.333, 1.000, 1.000

## Reliability Analysis

Fade outage method: Vigants-Barnett  
 C param. for Vigants-Barnett:  
 average prop. conditions: C=1  
 ITU-R terrain type: Inland  
 ITU-R refract. grad.: 10.0 %  
 External interf.: -100.0 dBmW  
 Dispersive fade margin: 50.0 dB  
 Ant. spacing (diversity): 0.0 m  
 Rain outage method: Crane  
 Rain region: A

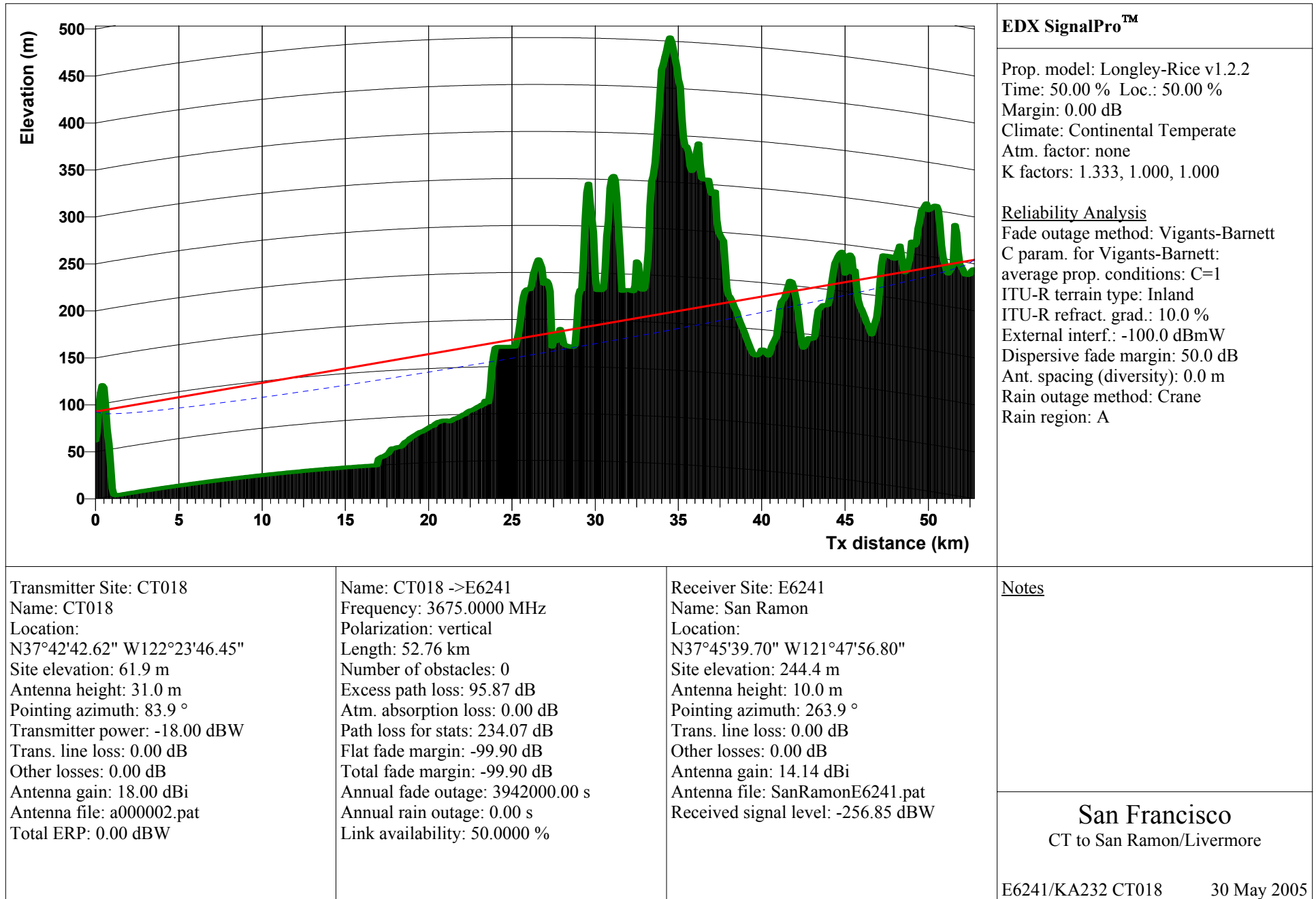
## Notes

**San Francisco**  
 CT to San Ramon/Livermore

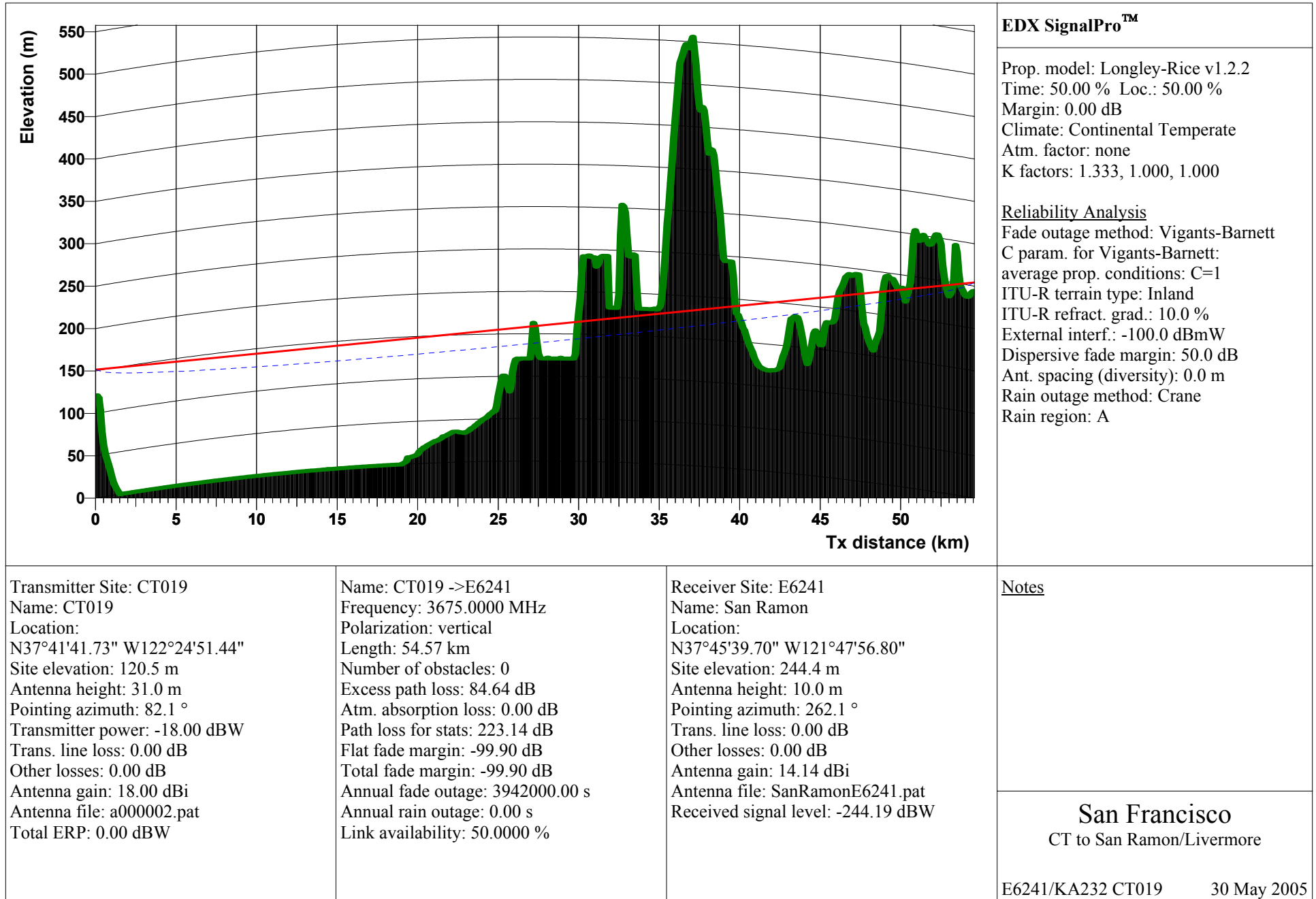
E6241/KA232 CT017

30 May 2005

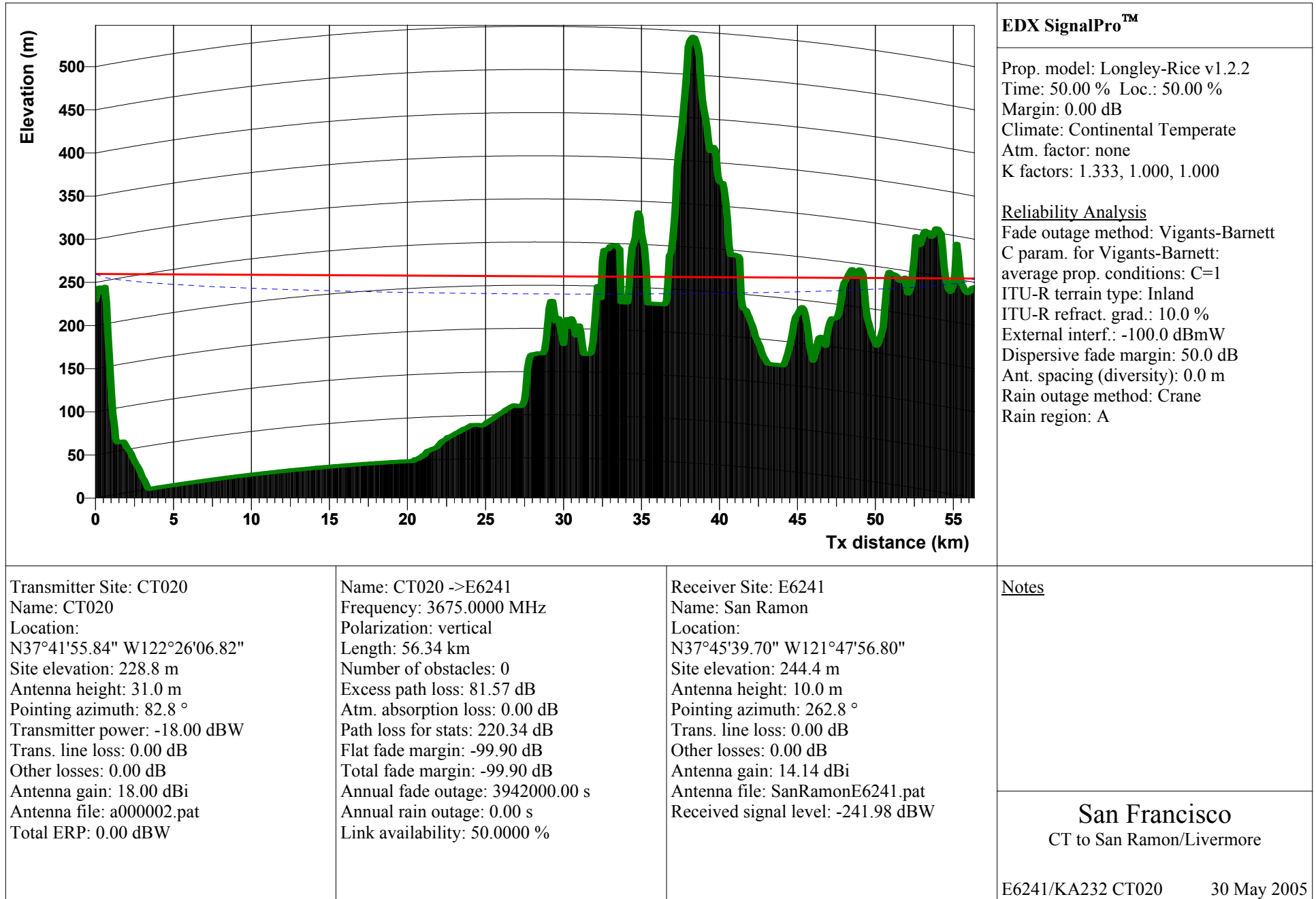
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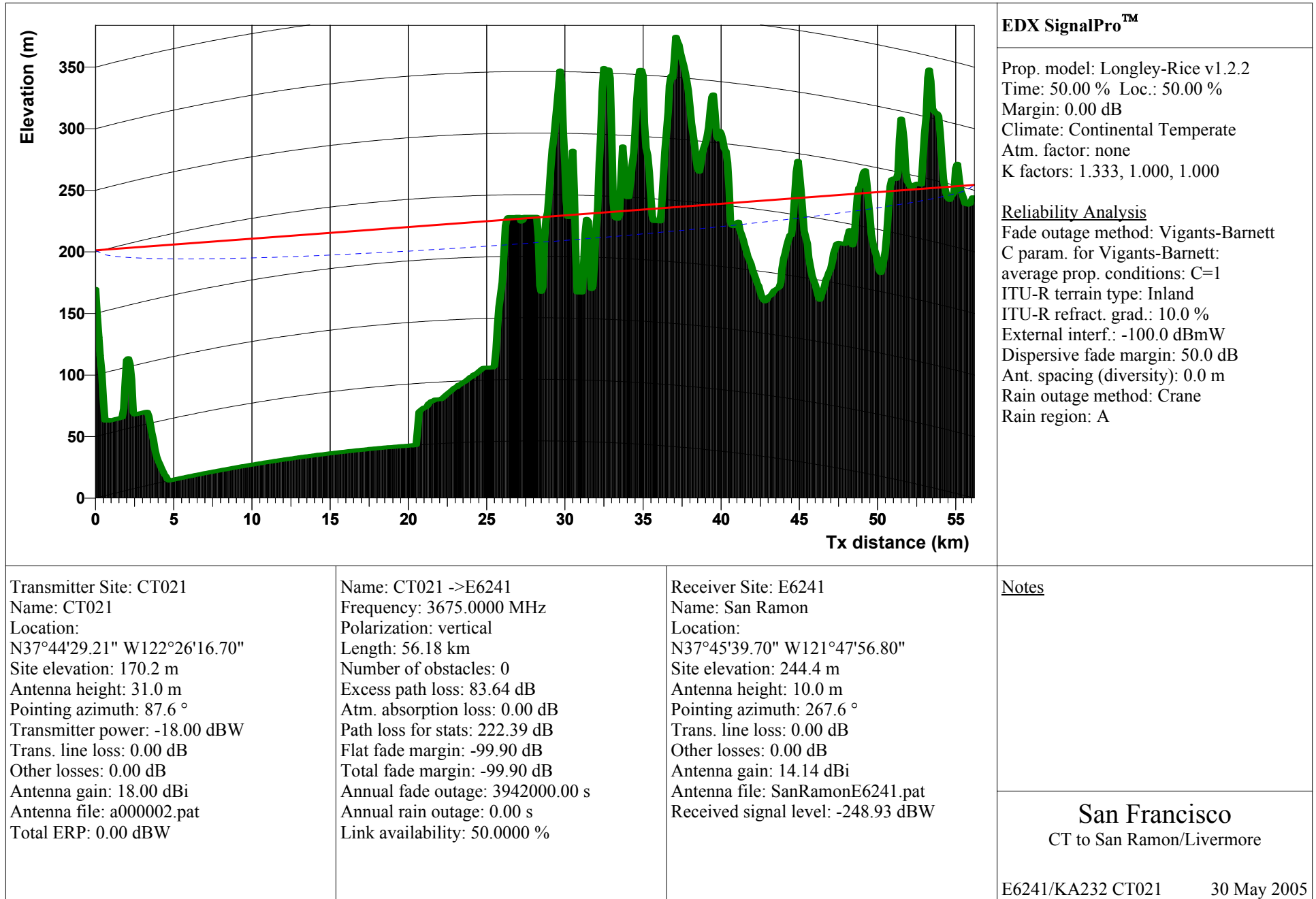
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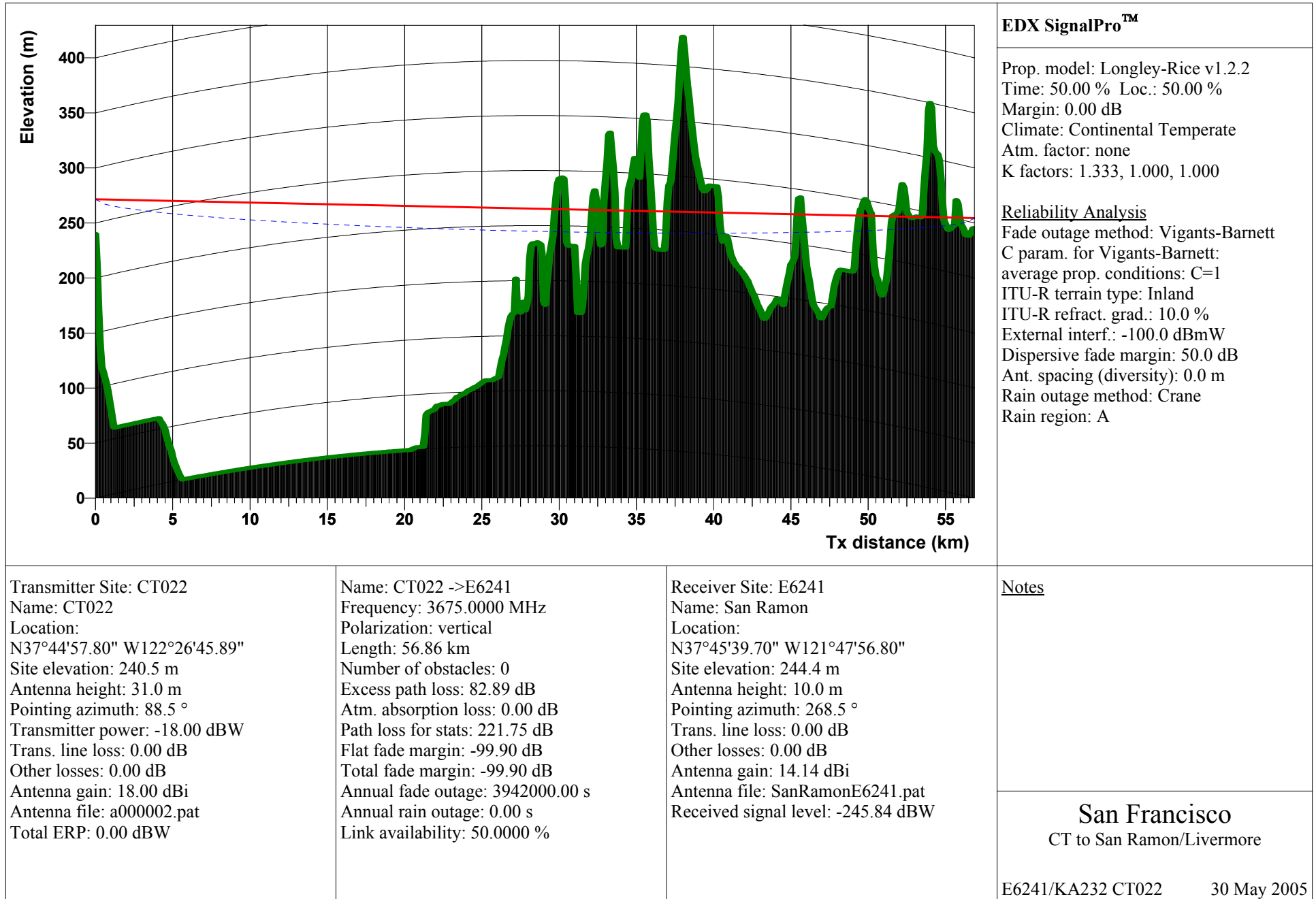
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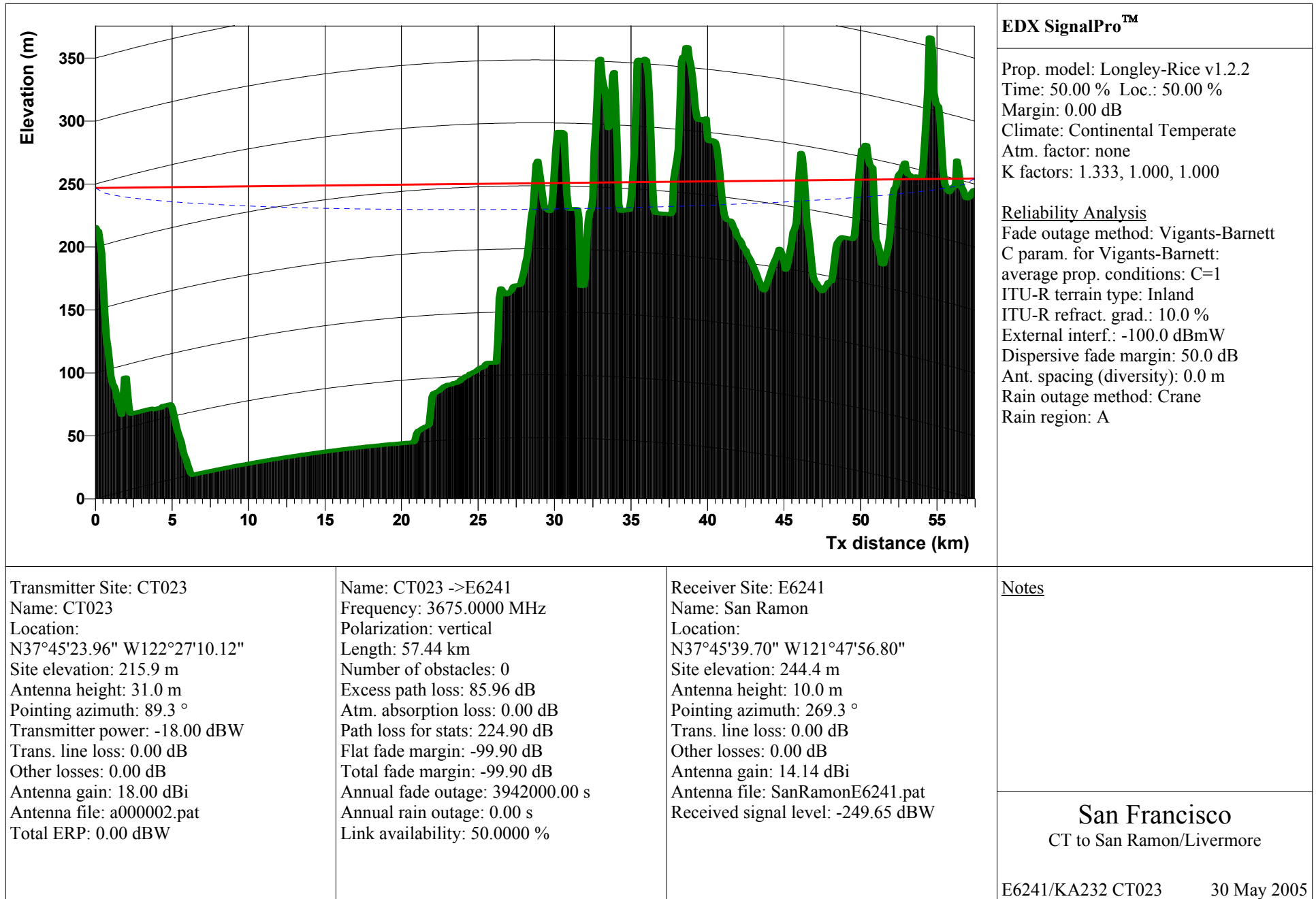
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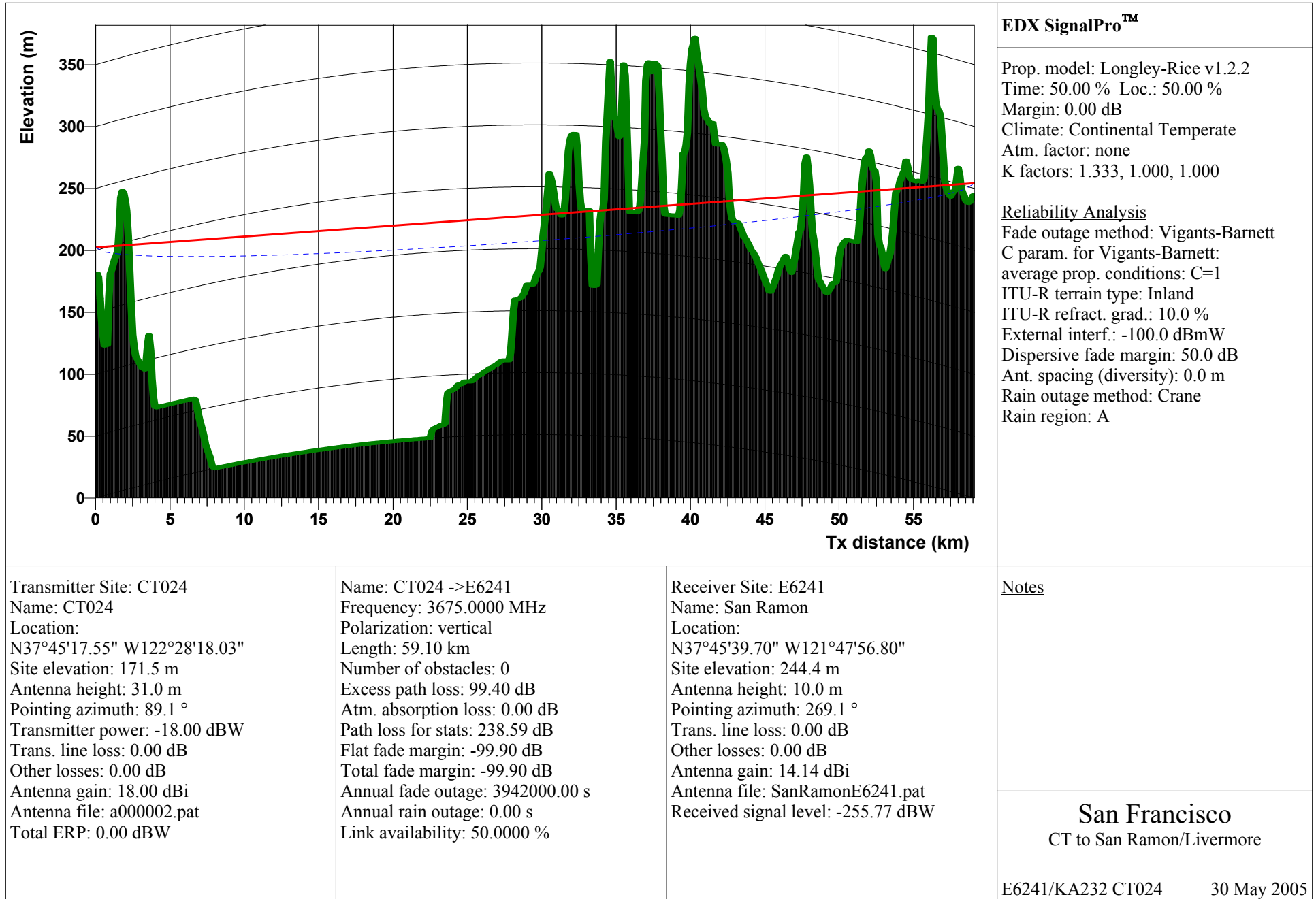
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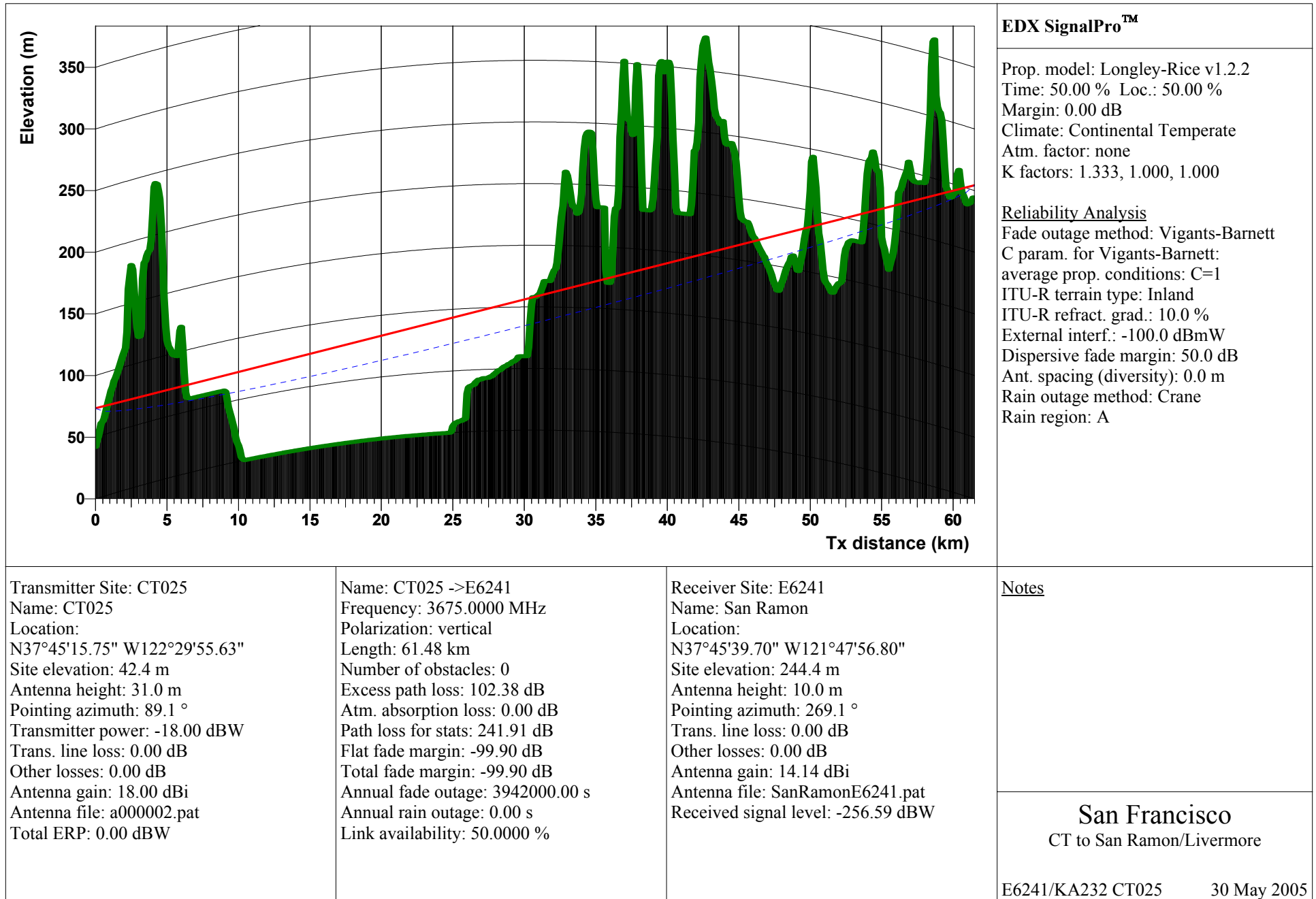


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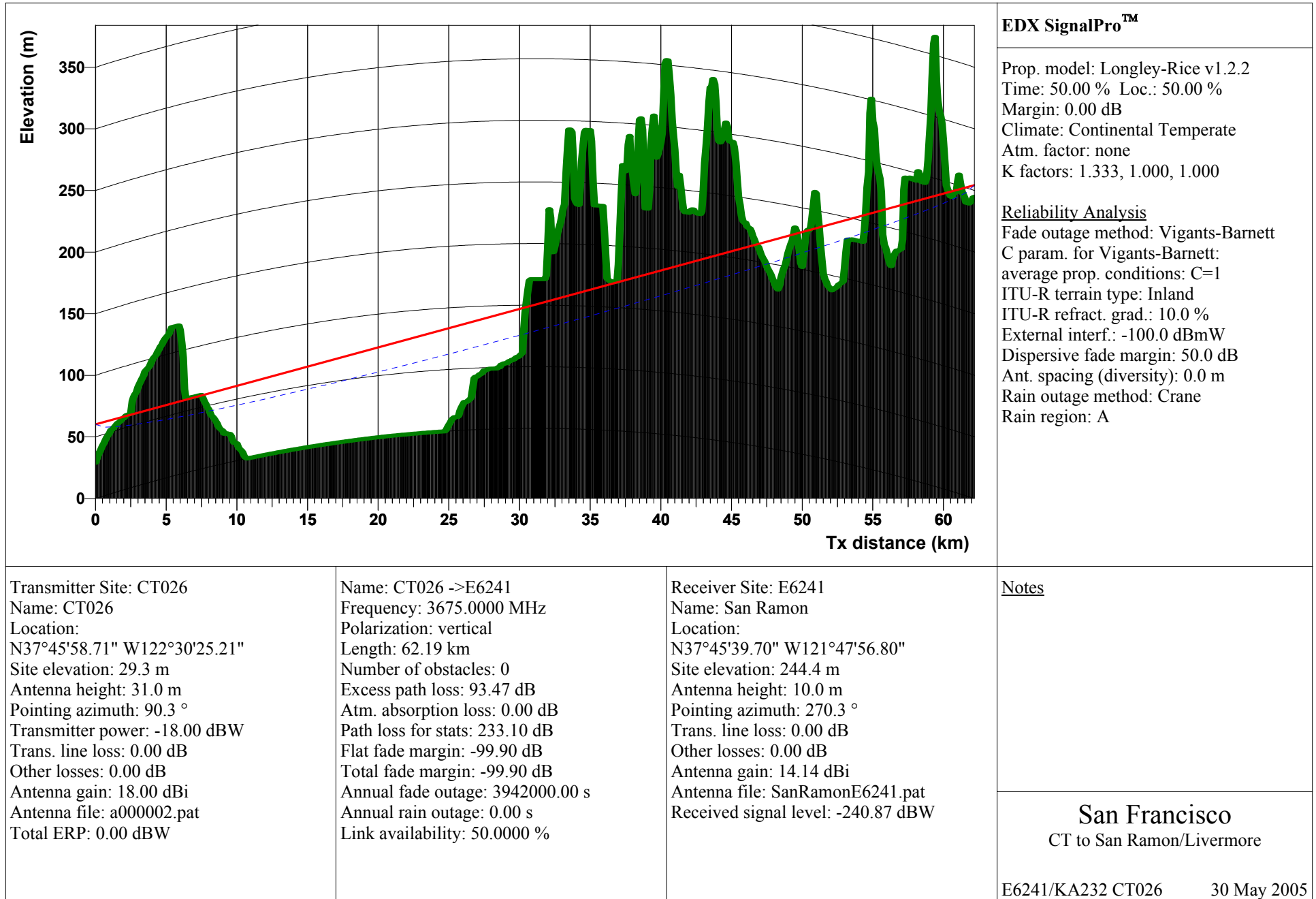


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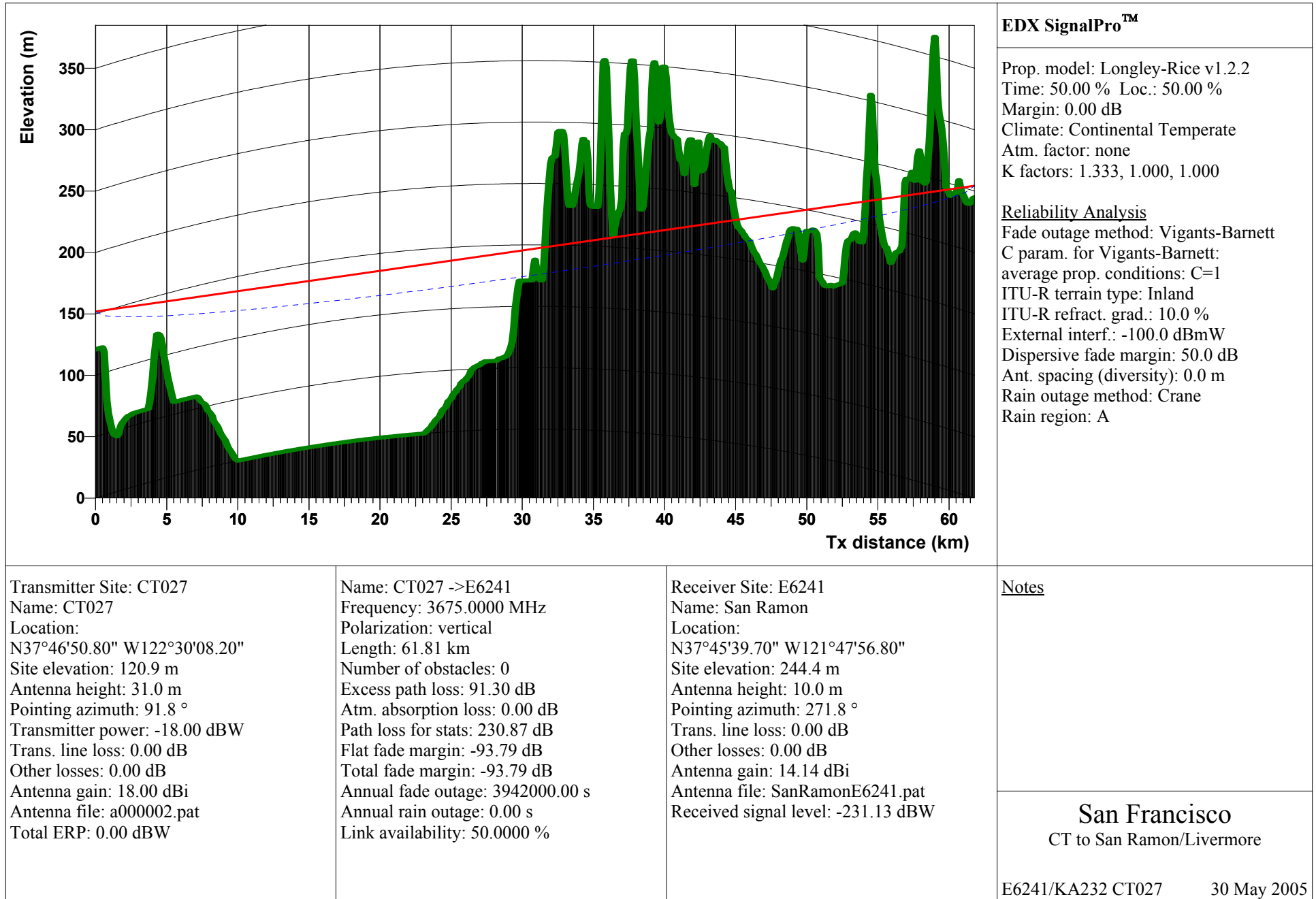




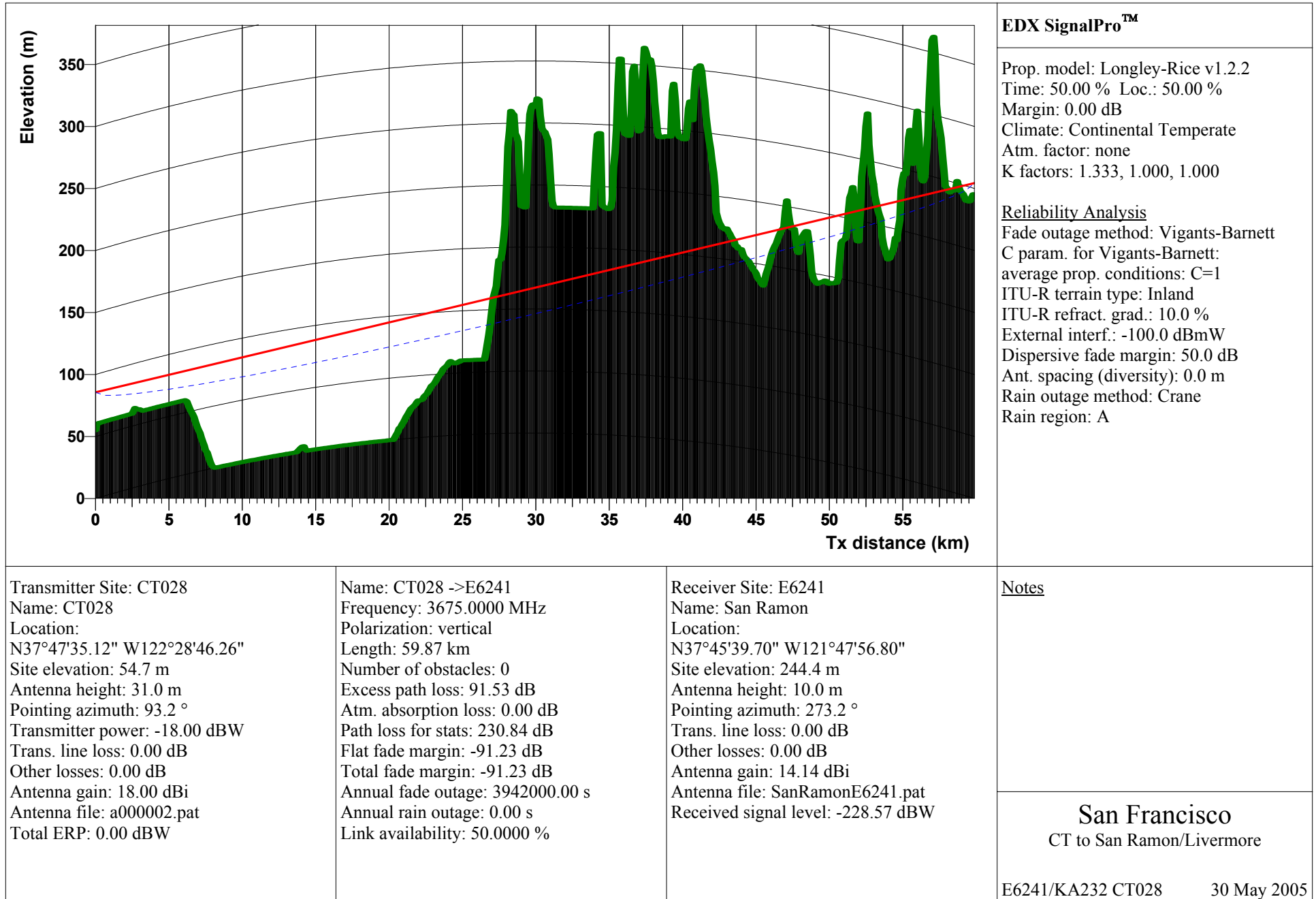
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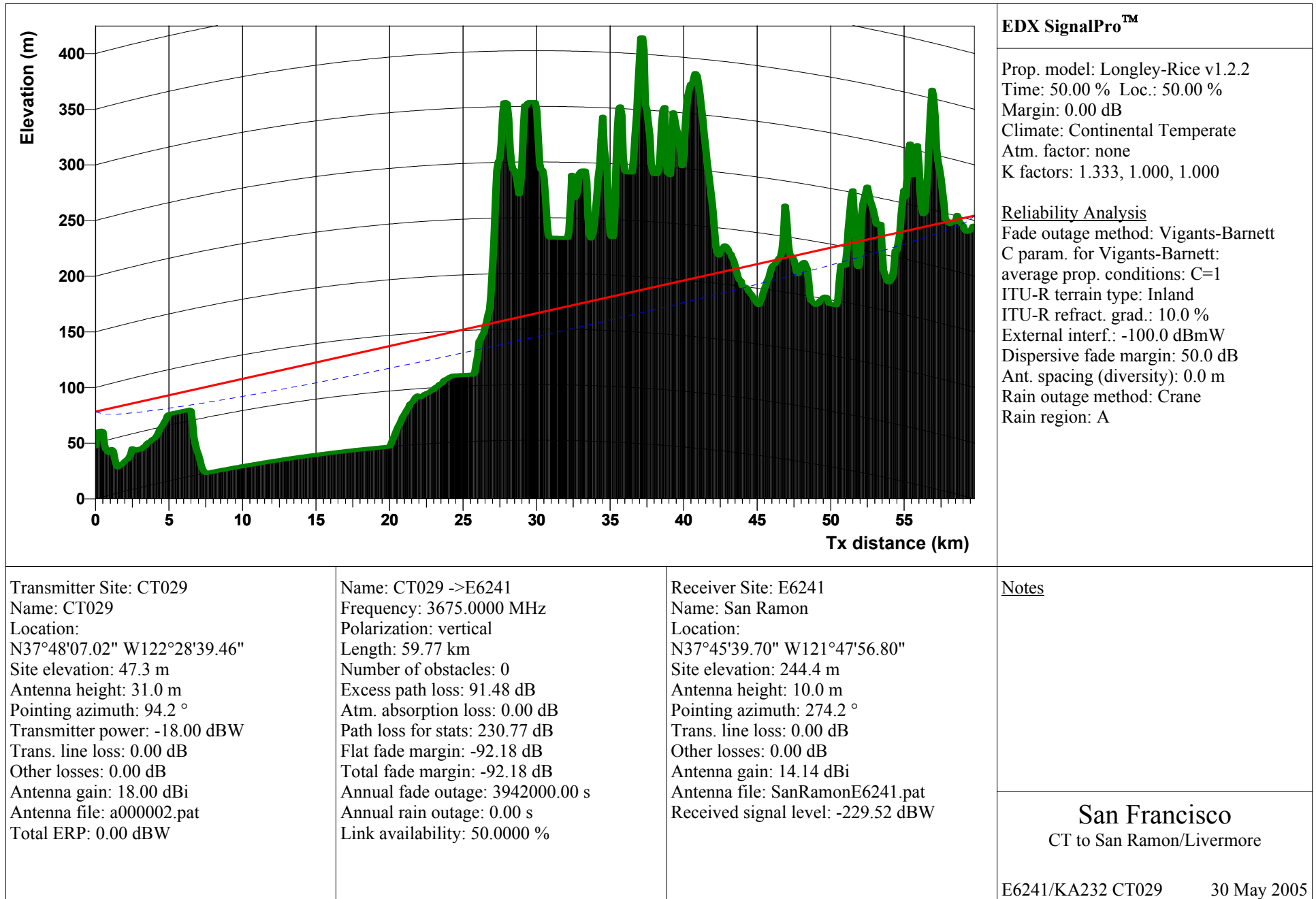
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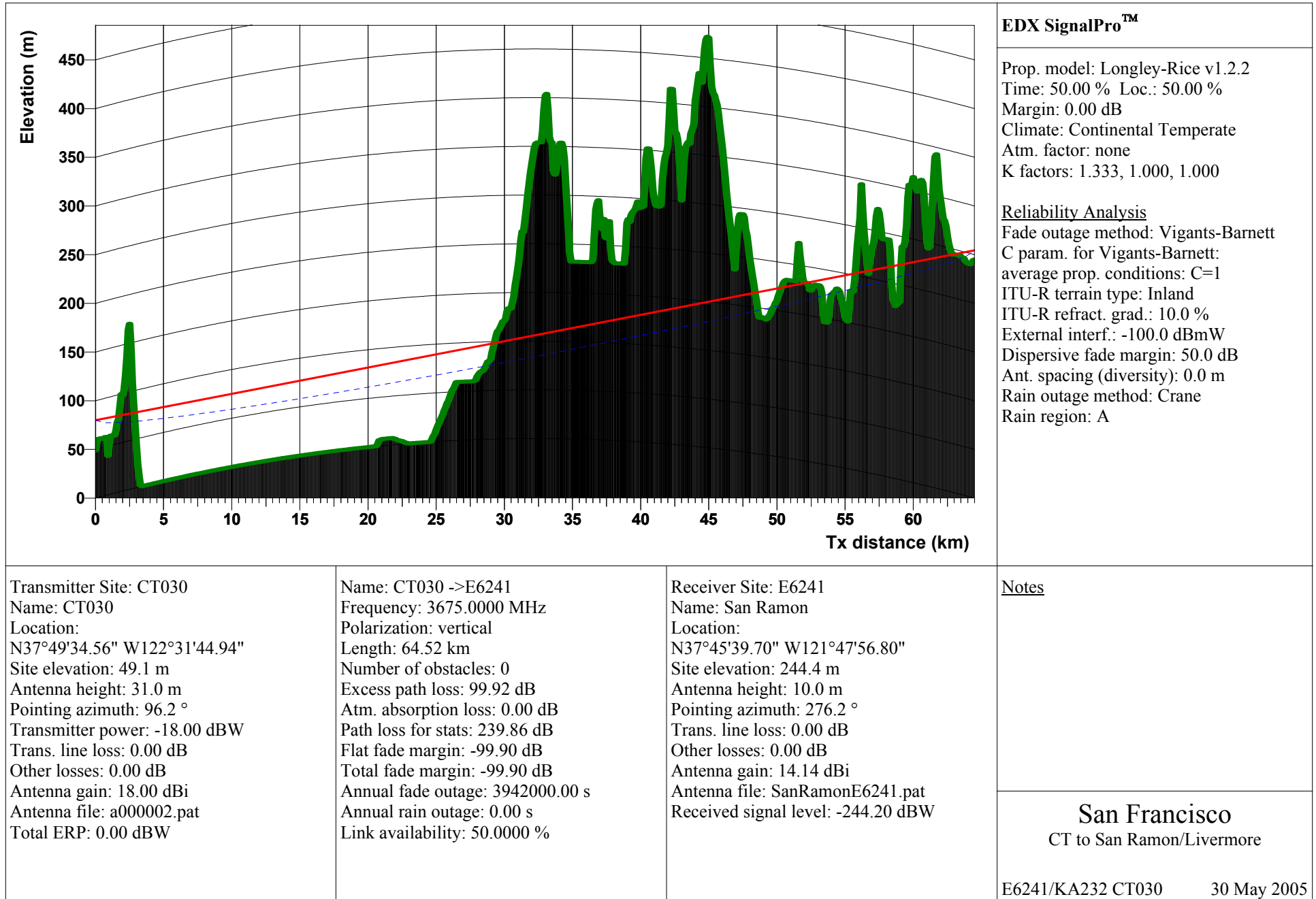
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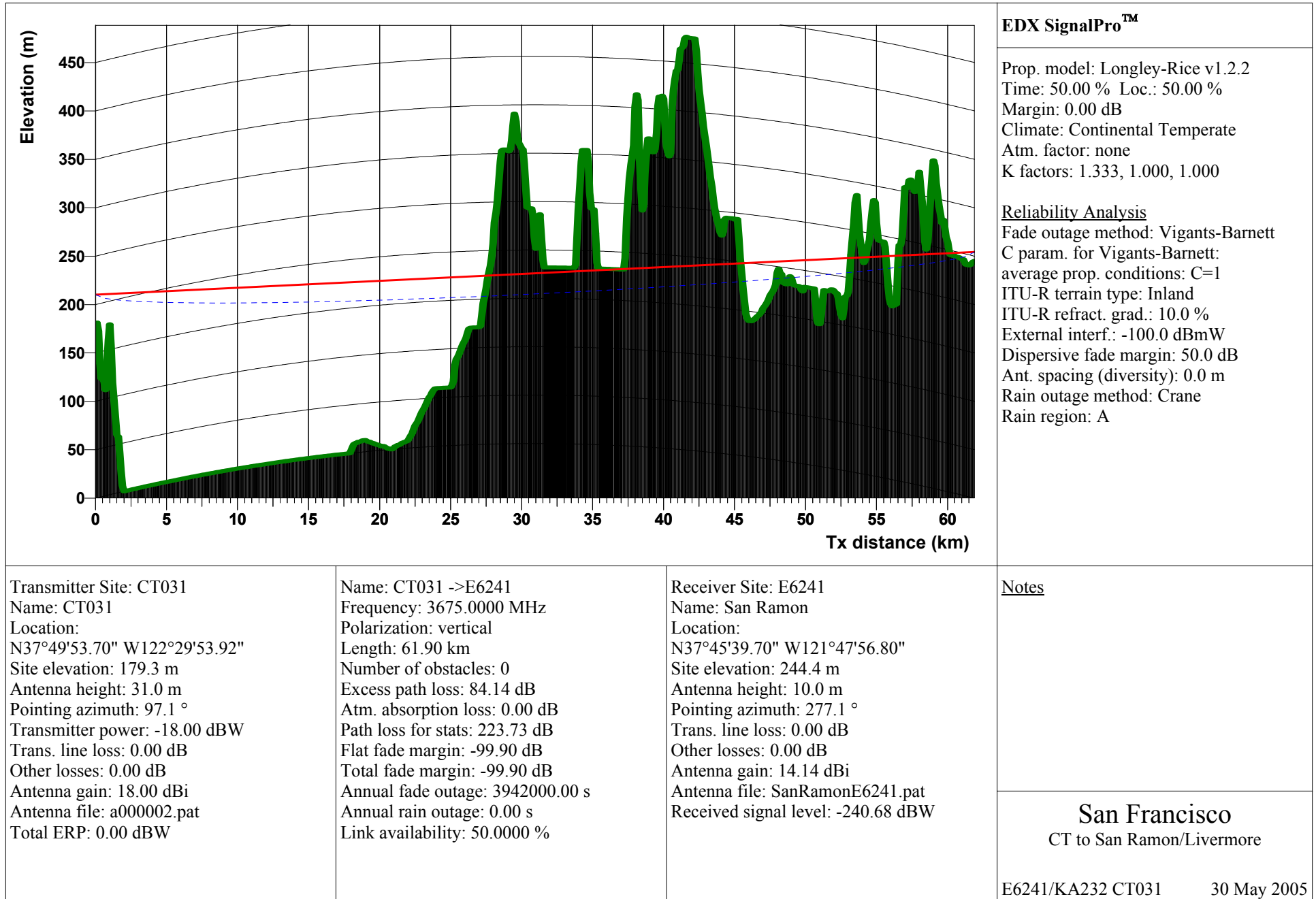
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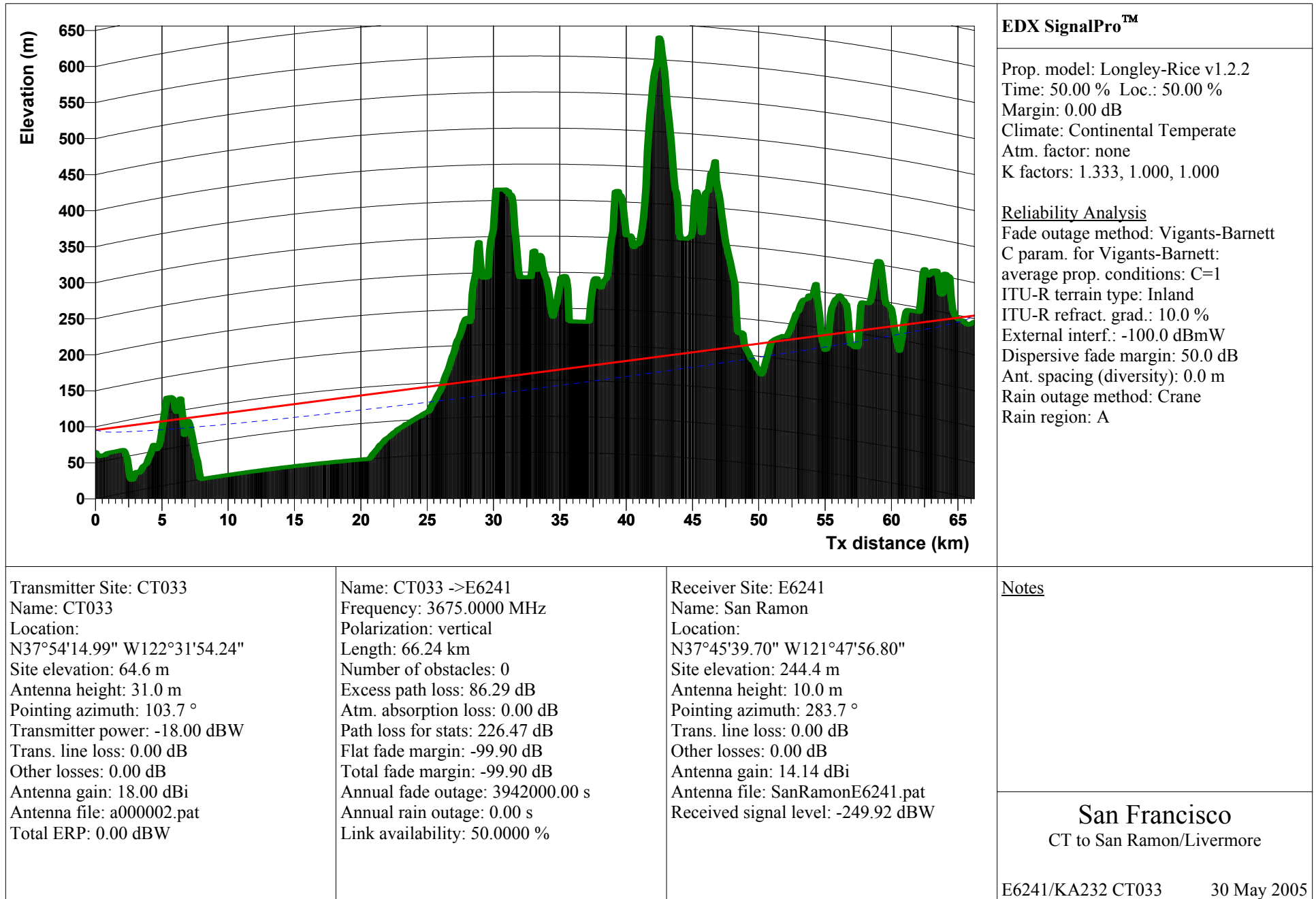
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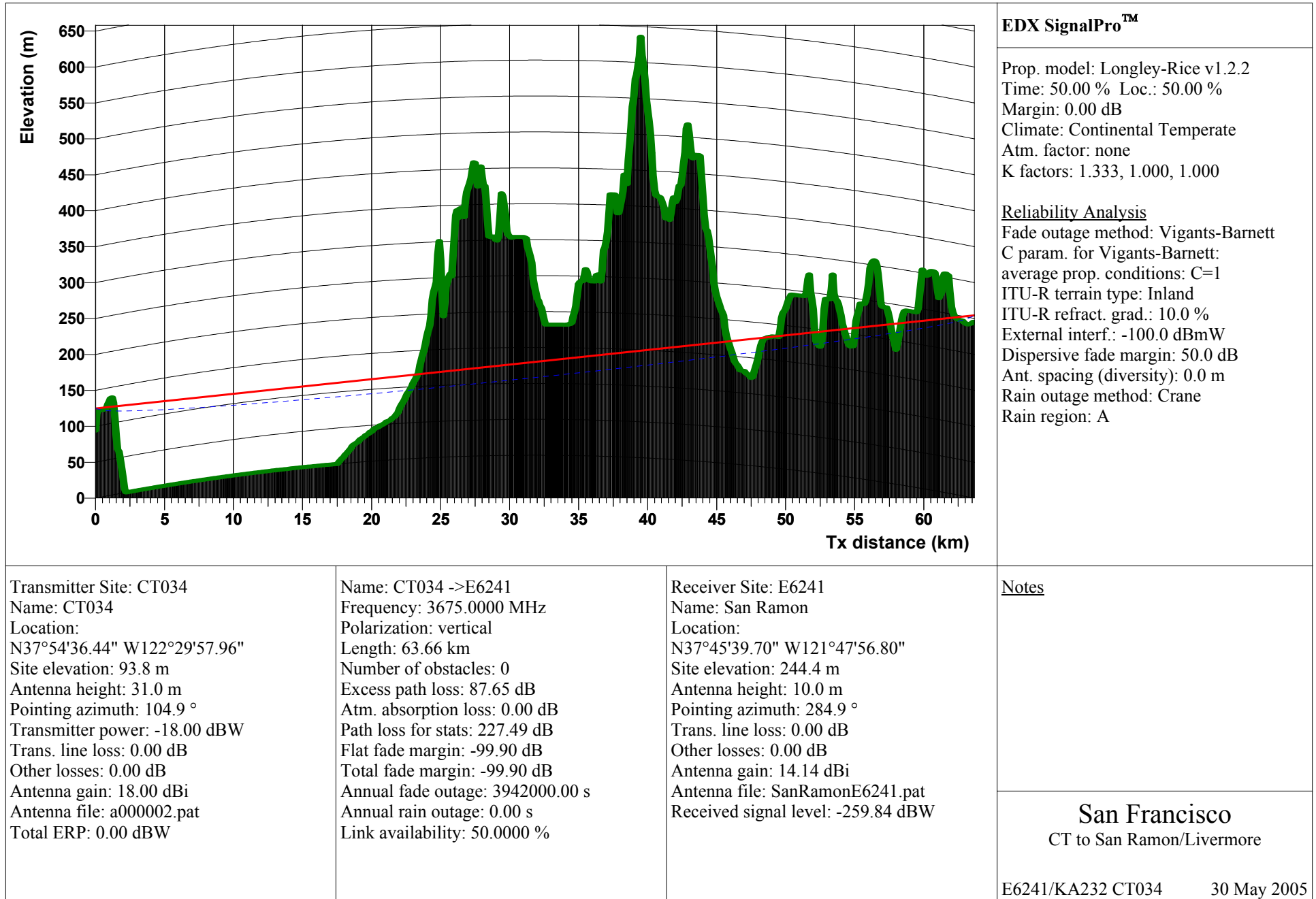
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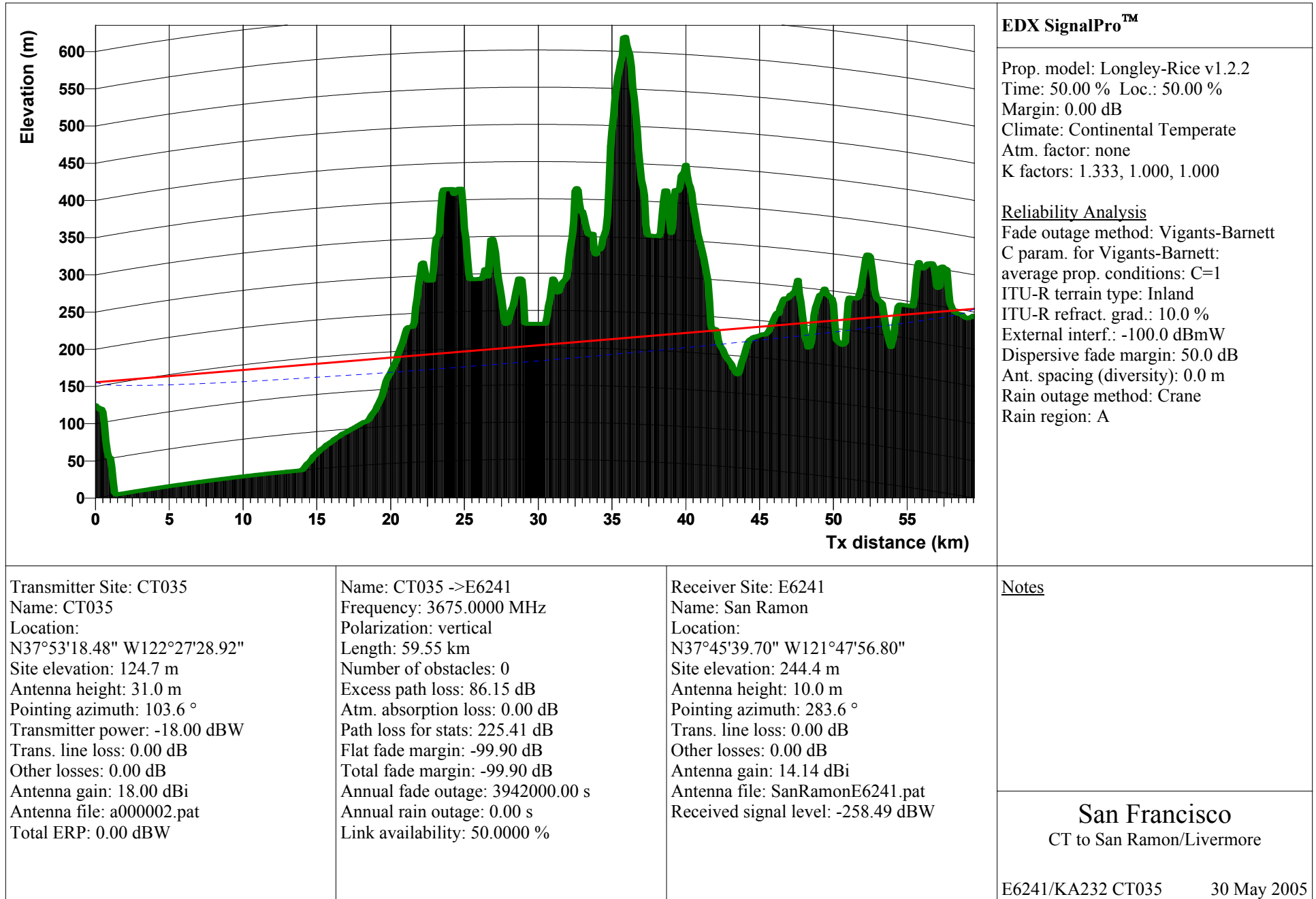
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|                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                  | <b>EDX SignalPro™</b><br><br>Prop. model: Longley-Rice v1.2.2<br>Time: 50.00 % Loc.: 50.00 %<br>Margin: 0.00 dB<br>Climate: Continental Temperate<br>Atm. factor: none<br>K factors: 1.333, 1.000, 1.000<br><br><u>Reliability Analysis</u><br>Fade outage method: Vigants-Barnett<br>C param. for Vigants-Barnett:<br>average prop. conditions: C=1<br>ITU-R terrain type: Inland<br>ITU-R refract. grad.: 10.0 %<br>External interf.: -100.0 dBmW<br>Dispersive fade margin: 50.0 dB<br>Ant. spacing (diversity): 0.0 m<br>Rain outage method: Crane<br>Rain region: A |
| Transmitter Site: CT032<br>Name: CT032<br>Location:<br>N37°50'44.70" W122°29'36.13"<br>Site elevation: 190.6 m<br>Antenna height: 31.0 m<br>Pointing azimuth: 98.6 °<br>Transmitter power: -18.00 dBW<br>Trans. line loss: 0.00 dB<br>Other losses: 0.00 dB<br>Antenna gain: 18.00 dBi<br>Antenna file: a000002.pat<br>Total ERP: 0.00 dBW | Name: CT032 ->E6241<br>Frequency: 3675.0000 MHz<br>Polarization: vertical<br>Length: 61.68 km<br>Number of obstacles: 0<br>Excess path loss: 79.13 dB<br>Atm. absorption loss: 0.00 dB<br>Path loss for stats: 218.69 dB<br>Flat fade margin: -99.90 dB<br>Total fade margin: -99.90 dB<br>Annual fade outage: 3942000.00 s<br>Annual rain outage: 0.00 s<br>Link availability: 50.0000 % | Receiver Site: E6241<br>Name: San Ramon<br>Location:<br>N37°45'39.70" W121°47'56.80"<br>Site elevation: 244.4 m<br>Antenna height: 10.0 m<br>Pointing azimuth: 278.6 °<br>Trans. line loss: 0.00 dB<br>Other losses: 0.00 dB<br>Antenna gain: 14.14 dBi<br>Antenna file: SanRamonE6241.pat<br>Received signal level: -239.54 dBW | <u>Notes</u><br><br><br><br><br><br><br><br><br><br><div style="text-align: center;"> <b>San Francisco</b><br/>         CT to San Ramon/Livermore       </div>                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                  | E6241/KA232 CT032 <span style="float: right;">30 May 2005</span>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |



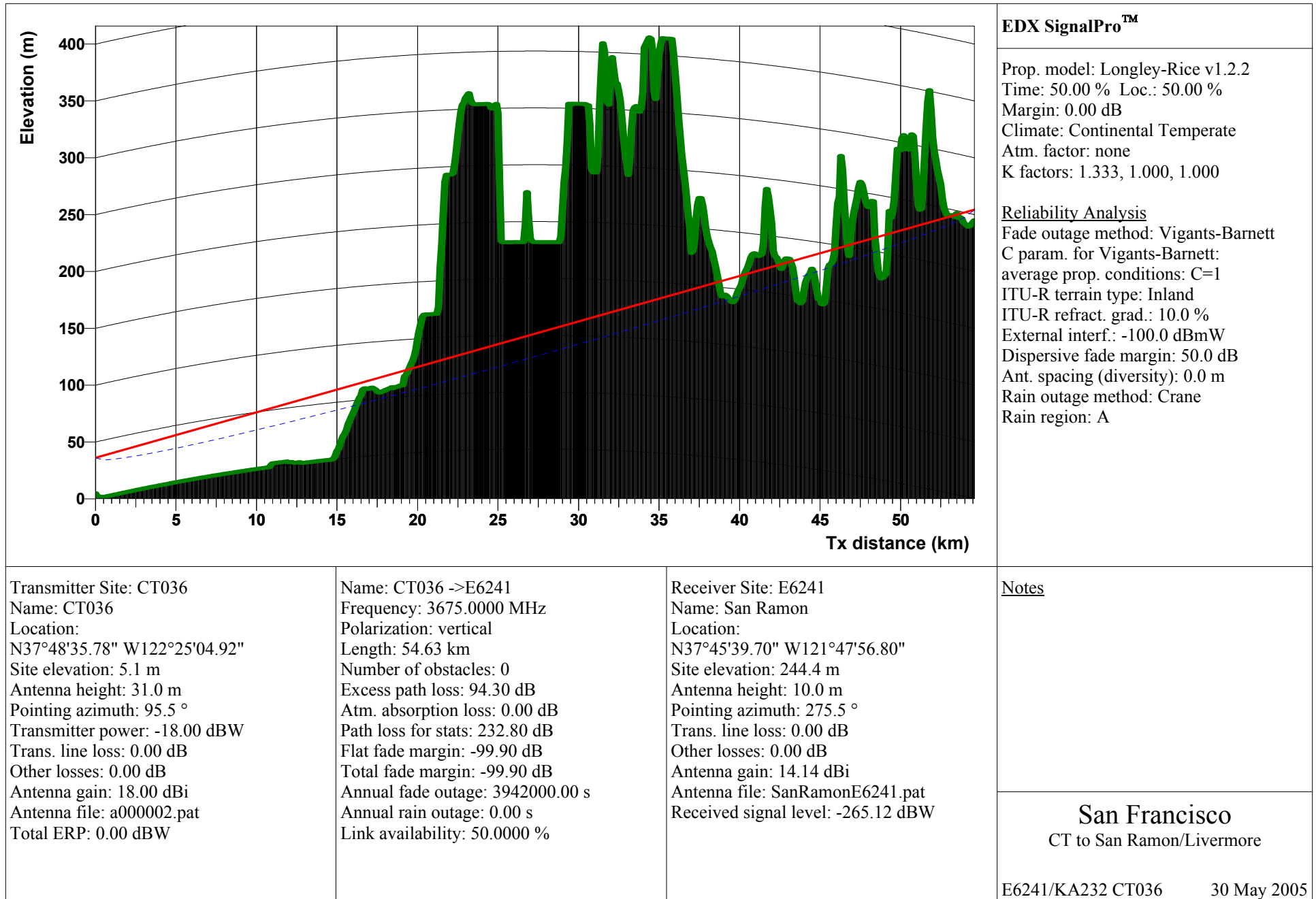
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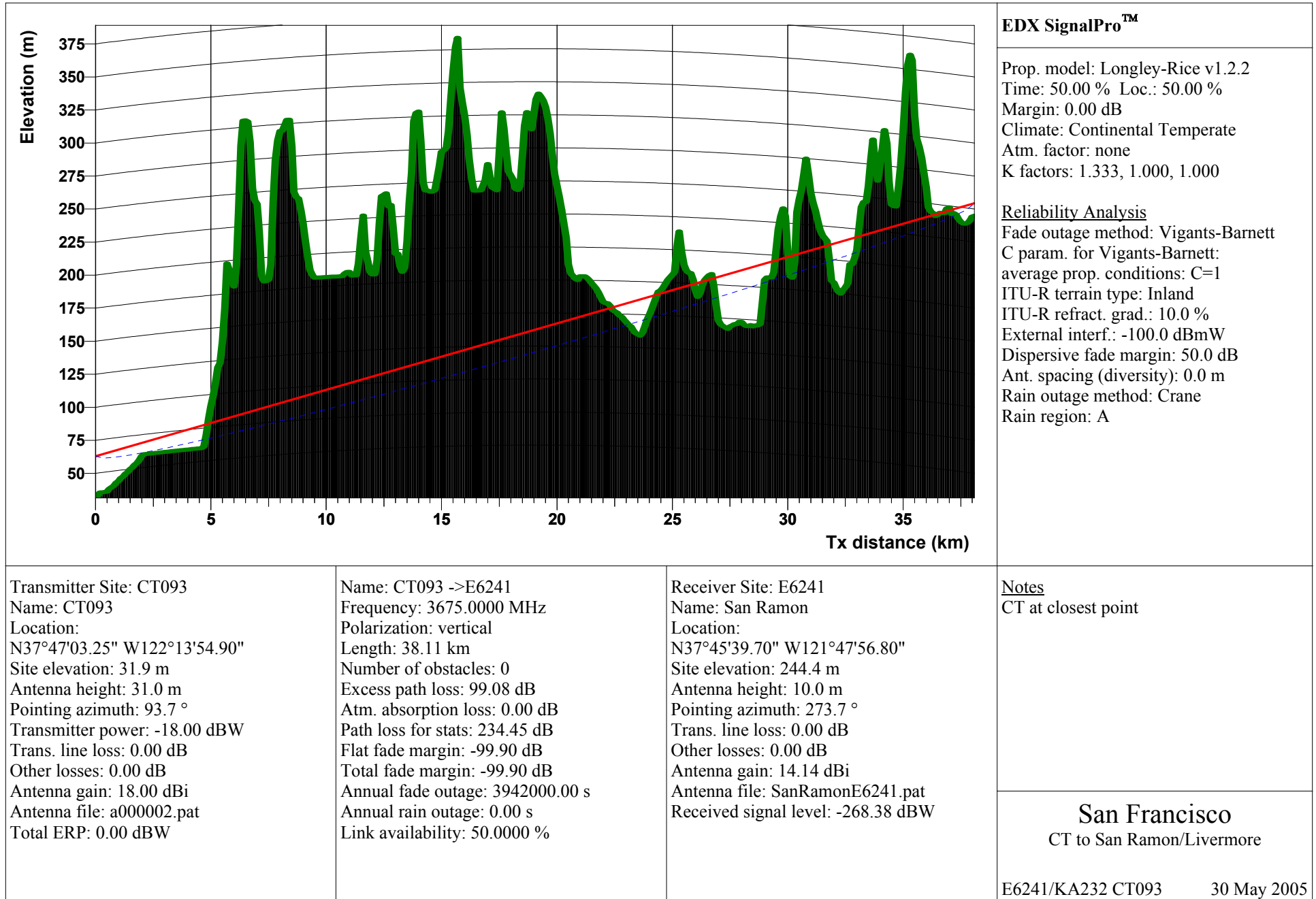
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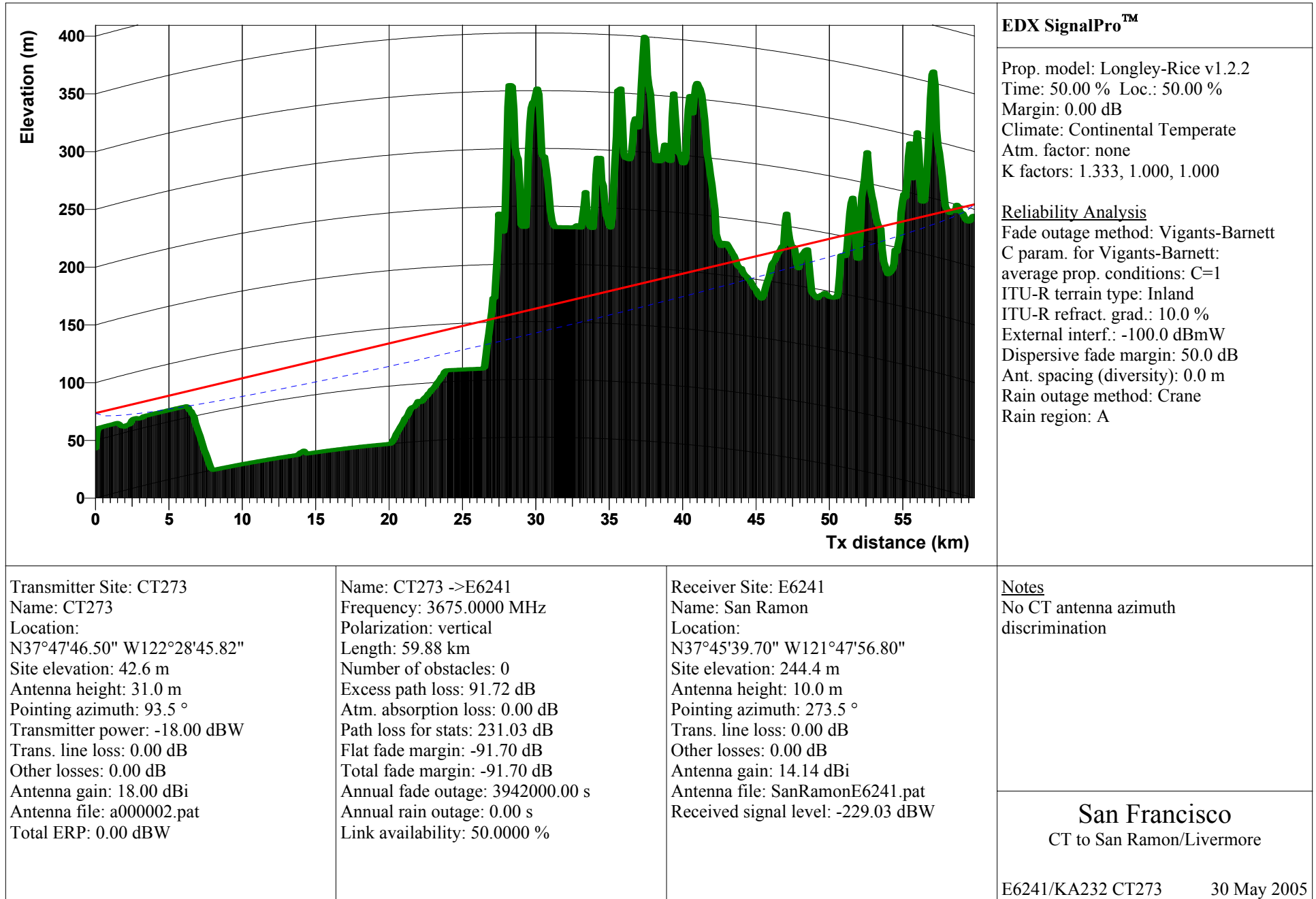
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# Link Study: trn/CT093-E6241.trn



# Link Study: trn/CT273-E6241.trn



This work is based upon our best interpretation of present system information, technical data, FCC rules and policies and policies and rules of other agencies. Due to the constantly changing nature of these data and policies, no work contained herein is warranted to be acceptable by the FCC or other agencies; or warranted that any action or undertaking based on it will be successful; or warranted that further submittals, administrative actions or litigations will not be required by others in support of this information or work. In the event of errors or omissions, our liability is strictly limited to replacement of this document with a corrected one. Any liability for consequential damages is specifically disclaimed.

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