

# SCHWARZBECK MESS - ELEKTRONIK

An der Klinge 29 D-69250 Schönau Tel.: 06228/1001 Fax.: (49)6228/1003

## VULP 9118 B Korrekturdaten für kurze Meßentfernung Spitze-Prüfling VULP 9118 B Correction for Short Measuring Distance Tip-EuT

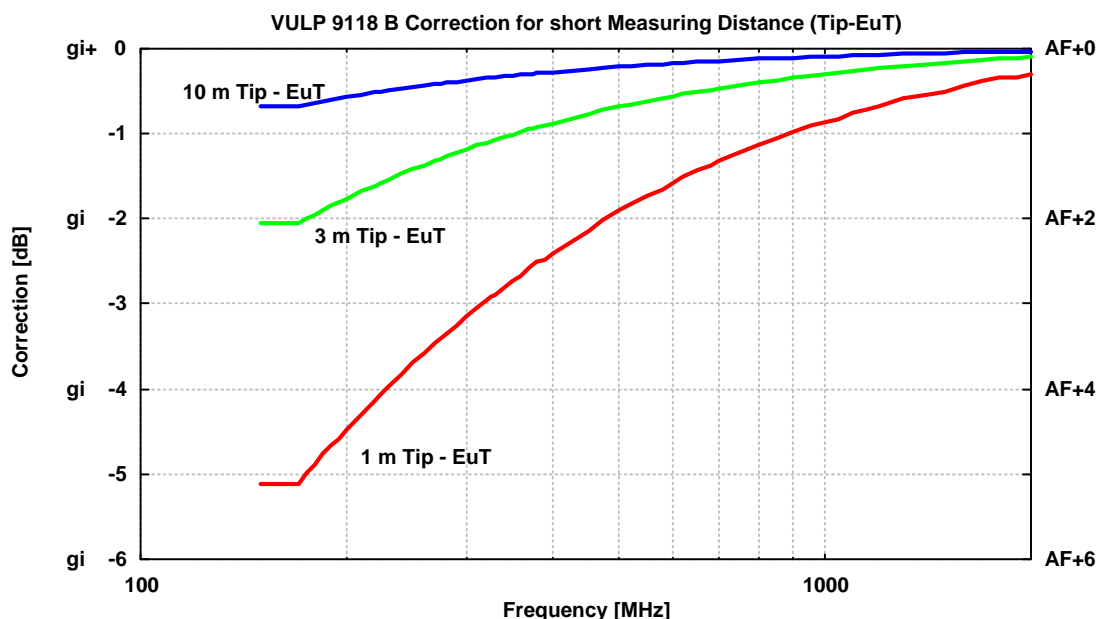
| Frequency                         | Gain(Iso.)                         | Ant.-Fact k                        | gi (10 m)                              | k (10m) | gi (3m) | k (3m) | gi (1m) | k (1m) |
|-----------------------------------|------------------------------------|------------------------------------|--|---------|---------|--------|---------|--------|
| Frequenz                          | Gewinn                             | Ant.Faktor                         | gi (10 m)                              | k (10m) | gi (3m) | k (3m) | gi (1m) | k (1m) |
| MHz                               | dBi                                | dB/m                               | dBi                                    | dB/m    | dBi     | dB/m   | dBi     | dB/m   |
| 150.0                             | 1.36                               | 12.38                              | 0.69                                   | 13.05   | -0.69   | 14.44  | -3.75   | 17.49  |
| 160.0                             | 3.84                               | 10.46                              | 3.17                                   | 11.13   | 1.79    | 12.52  | -1.27   | 15.57  |
| 170.0                             | 5.31                               | 9.52                               | 4.64                                   | 10.19   | 3.26    | 11.57  | 0.20    | 14.62  |
| 175.0                             | 5.78                               | 9.30                               | 5.13                                   | 9.95    | 3.78    | 11.30  | 0.80    | 14.28  |
| 180.0                             | 6.37                               | 8.96                               | 5.74                                   | 9.59    | 4.42    | 10.91  | 1.48    | 13.84  |
| 185.0                             | 6.74                               | 8.82                               | 6.13                                   | 9.44    | 4.85    | 10.72  | 1.98    | 13.58  |
| 190.0                             | 6.99                               | 8.80                               | 6.39                                   | 9.40    | 5.14    | 10.65  | 2.33    | 13.46  |
| 195.0                             | 7.14                               | 8.88                               | 6.56                                   | 9.46    | 5.33    | 10.69  | 2.56    | 13.46  |
| 200.0                             | 7.13                               | 9.11                               | 6.56                                   | 9.68    | 5.37    | 10.87  | 2.65    | 13.59  |
| 210.0                             | 6.99                               | 9.67                               | 6.45                                   | 10.21   | 5.31    | 11.35  | 2.69    | 13.97  |
| 220.0                             | 7.12                               | 9.95                               | 6.61                                   | 10.46   | 5.51    | 11.56  | 2.98    | 14.08  |
| 225.0                             | 7.05                               | 10.21                              | 6.55                                   | 10.72   | 5.48    | 11.79  | 2.99    | 14.27  |
| 230.0                             | 7.07                               | 10.39                              | 6.58                                   | 10.87   | 5.53    | 11.92  | 3.10    | 14.36  |
| 240.0                             | 6.95                               | 10.88                              | 6.48                                   | 11.34   | 5.48    | 12.35  | 3.12    | 14.71  |
| 250.0                             | 7.02                               | 11.16                              | 6.57                                   | 11.61   | 5.61    | 12.57  | 3.33    | 14.85  |
| 260.0                             | 7.07                               | 11.45                              | 6.64                                   | 11.88   | 5.71    | 12.81  | 3.49    | 15.03  |
| 270.0                             | 6.83                               | 12.02                              | 6.41                                   | 12.43   | 5.52    | 13.33  | 3.37    | 15.48  |
| 275.0                             | 6.78                               | 12.23                              | 6.37                                   | 12.63   | 5.49    | 13.52  | 3.37    | 15.63  |
| 280.0                             | 6.92                               | 12.24                              | 6.52                                   | 12.64   | 5.66    | 13.51  | 3.57    | 15.59  |
| 290.0                             | 7.09                               | 12.38                              | 6.70                                   | 12.76   | 5.86    | 13.60  | 3.83    | 15.64  |
| 300.0                             | 7.15                               | 12.61                              | 6.78                                   | 12.98   | 5.97    | 13.79  | 4.01    | 15.75  |
| 310.0                             | 7.19                               | 12.85                              | 6.83                                   | 13.21   | 6.05    | 14.00  | 4.14    | 15.90  |
| 320.0                             | 7.16                               | 13.17                              | 6.82                                   | 13.51   | 6.06    | 14.26  | 4.21    | 16.12  |
| 325.0                             | 7.11                               | 13.35                              | 6.77                                   | 13.69   | 6.02    | 14.43  | 4.19    | 16.27  |
| 330.0                             | 7.10                               | 13.49                              | 6.76                                   | 13.83   | 6.03    | 14.56  | 4.21    | 16.38  |
| 340.0                             | 7.17                               | 13.67                              | 6.85                                   | 14.00   | 6.13    | 14.72  | 4.37    | 16.48  |
| 350.0                             | 7.20                               | 13.90                              | 6.88                                   | 14.22   | 6.19    | 14.91  | 4.47    | 16.64  |
| 360.0                             | 7.23                               | 14.11                              | 6.92                                   | 14.42   | 6.25    | 15.10  | 4.56    | 16.79  |
| 370.0                             | 7.12                               | 14.47                              | 6.83                                   | 14.76   | 6.17    | 15.41  | 4.55    | 17.04  |
| 375.0                             | 7.02                               | 14.68                              | 6.73                                   | 14.97   | 6.09    | 15.61  | 4.48    | 17.22  |
| 380.0                             | 7.13                               | 14.69                              | 6.84                                   | 14.97   | 6.21    | 15.61  | 4.62    | 17.20  |
| 390.0                             | 7.07                               | 14.97                              | 6.79                                   | 15.25   | 6.16    | 15.88  | 4.59    | 17.45  |
| 400.0                             | 7.09                               | 15.17                              | 6.82                                   | 15.44   | 6.21    | 16.05  | 4.68    | 17.58  |
| 425.0                             | 6.90                               | 15.88                              | 6.64                                   | 16.14   | 6.07    | 16.72  | 4.62    | 18.17  |
| 450.0                             | 6.97                               | 16.31                              | 6.73                                   | 16.55   | 6.19    | 17.09  | 4.83    | 18.46  |
| 475.0                             | 7.00                               | 16.75                              | 6.78                                   | 16.98   | 6.28    | 17.48  | 4.99    | 18.76  |
| 500.0                             | 7.06                               | 17.14                              | 6.85                                   | 17.35   | 6.38    | 17.82  | 5.16    | 19.04  |
| 520.0                             | 7.11                               | 17.43                              | 6.91                                   | 17.63   | 6.45    | 18.09  | 5.28    | 19.26  |
| 550.0                             | 6.69                               | 18.33                              | 6.50                                   | 18.53   | 6.08    | 18.95  | 4.96    | 20.06  |
| 580.0                             | 6.81                               | 18.68                              | 6.63                                   | 18.86   | 6.22    | 19.27  | 5.15    | 20.33  |
| 600.0                             | 6.73                               | 19.05                              | 6.56                                   | 19.23   | 6.17    | 19.61  | 5.15    | 20.64  |
| <b>Bezugs-</b><br><b>punkt:</b>   | <b>Strahlungs</b><br><b>-zone:</b> | <b>Strahlungs</b><br><b>-zone:</b> | <b>Spitze der Log. - Per. Struktur</b> |         |         |        |         |        |
| <b>Reference</b><br><b>Point:</b> | <b>Radiating</b><br><b>Zone:</b>   | <b>Radiating</b><br><b>Zone:</b>   | <b>Tip of Log. - Per Structure</b>     |         |         |        |         |        |

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## VULP 9118 B Korrekturdaten für kurze Meßentfernung Spitze-Prüfling VULP 9118 B Correction for Short Measuring Distance Tip-EuT

| Frequency                         | Gain(Iso.)                          | Ant.-Fact k                         | gi (10 m)                              | k (10m) | gi (3m) | k (3m) | gi (1m) | k (1m) |
|-----------------------------------|-------------------------------------|-------------------------------------|--|---------|---------|--------|---------|--------|
| Frequenz                          | Gewinn                              | Ant.Faktor                          | gi (10 m)                              | k (10m) | gi (3m) | k (3m) | gi (1m) | k (1m) |
| MHz                               | dBi                                 | dB/m                                | dBi                                    | dB/m    | dBi     | dB/m   | dBi     | dB/m   |
| 620.0                             | 6.70                                | 19.36                               | 6.54                                   | 19.53   | 6.17    | 19.90  | 5.19    | 20.88  |
| 650.0                             | 6.68                                | 19.79                               | 6.53                                   | 19.95   | 6.17    | 20.30  | 5.24    | 21.24  |
| 680.0                             | 6.74                                | 20.13                               | 6.59                                   | 20.28   | 6.26    | 20.61  | 5.38    | 21.49  |
| 700.0                             | 6.78                                | 20.34                               | 6.64                                   | 20.48   | 6.31    | 20.81  | 5.45    | 21.67  |
| 750.0                             | 6.83                                | 20.89                               | 6.70                                   | 21.02   | 6.41    | 21.32  | 5.62    | 22.11  |
| 800.0                             | 6.69                                | 21.60                               | 6.57                                   | 21.71   | 6.29    | 21.99  | 5.55    | 22.73  |
| 850.0                             | 6.95                                | 21.86                               | 6.84                                   | 21.97   | 6.58    | 22.23  | 5.89    | 22.92  |
| 900.0                             | 6.53                                | 22.78                               | 6.43                                   | 22.88   | 6.19    | 23.12  | 5.55    | 23.76  |
| 950.0                             | 6.30                                | 23.48                               | 6.20                                   | 23.57   | 5.99    | 23.79  | 5.39    | 24.38  |
| 1000.0                            | 6.70                                | 23.52                               | 6.61                                   | 23.61   | 6.40    | 23.82  | 5.83    | 24.39  |
| 1050.0                            | 6.67                                | 23.98                               | 6.58                                   | 24.06   | 6.39    | 24.26  | 5.84    | 24.80  |
| 1100.0                            | 6.10                                | 24.95                               | 6.02                                   | 25.03   | 5.84    | 25.20  | 5.35    | 25.70  |
| 1150.0                            | 5.92                                | 25.52                               | 5.85                                   | 25.59   | 5.68    | 25.76  | 5.21    | 26.22  |
| 1200.0                            | 6.35                                | 25.46                               | 6.28                                   | 25.52   | 6.12    | 25.68  | 5.68    | 26.12  |
| 1300.0                            | 5.90                                | 26.60                               | 5.84                                   | 26.66   | 5.70    | 26.80  | 5.31    | 27.19  |
| 1400.0                            | 5.15                                | 27.99                               | 5.09                                   | 28.05   | 4.96    | 28.18  | 4.60    | 28.54  |
| 1500.0                            | 5.29                                | 28.45                               | 5.24                                   | 28.50   | 5.12    | 28.62  | 4.78    | 28.96  |
| 1600.0                            | 3.61                                | 30.69                               | 3.57                                   | 30.74   | 3.47    | 30.84  | 3.19    | 31.12  |
| 1700.0                            | 2.89                                | 31.94                               | 2.85                                   | 31.98   | 2.76    | 32.07  | 2.51    | 32.32  |
| 1800.0                            | 3.45                                | 31.87                               | 3.42                                   | 31.91   | 3.33    | 31.99  | 3.11    | 32.22  |
| 1900.0                            | 2.56                                | 33.23                               | 2.53                                   | 33.27   | 2.44    | 33.35  | 2.22    | 33.58  |
| 2000.0                            | -0.45                               | 36.69                               | -0.48                                  | 36.72   | -0.55   | 36.79  | -0.75   | 36.99  |
| <b>Bezugs-</b><br><b>punkt:</b>   | <b>Strahlungs-</b><br><b>-zone:</b> | <b>Strahlungs-</b><br><b>-zone:</b> | <b>Spitze der Log. - Per. Struktur</b> |         |         |        |         |        |
| <b>Reference</b><br><b>Point:</b> | <b>Radiating</b><br><b>Zone:</b>    | <b>Radiating</b><br><b>Zone:</b>    | <b>Tip of Log. - Per Structure</b>     |         |         |        |         |        |



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| Frequency                   | Gain(Iso.)                    | Ant.-Fact k                   | gi (10 m)                              | k (10m) | gi (3m) | k (3m) | gi (1m) | k (1m) |
|-----------------------------|-------------------------------|-------------------------------|--|---------|---------|--------|---------|--------|
| Frequenz                    | Gewinn                        | Ant.Faktor                    | gi (10 m)                              | k (10m) | gi (3m) | k (3m) | gi (1m) | k (1m) |
| MHz                         | dBi                           | dB/m                          | dBi                                    | dB/m    | dBi     | dB/m   | dBi     | dB/m   |
| 150.0                       | 1.36                          | 12.38                         | 1.02                                   | 12.72   | 0.27    | 13.47  | -1.56   | 15.30  |
| 160.0                       | 3.84                          | 10.46                         | 3.50                                   | 10.80   | 2.75    | 11.55  | 0.92    | 13.38  |
| 170.0                       | 5.31                          | 9.52                          | 4.97                                   | 9.86    | 4.22    | 10.61  | 2.39    | 12.44  |
| 175.0                       | 5.78                          | 9.30                          | 5.46                                   | 9.62    | 4.76    | 10.32  | 3.01    | 12.07  |
| 180.0                       | 6.37                          | 8.96                          | 6.07                                   | 9.26    | 5.40    | 9.93   | 3.73    | 11.59  |
| 185.0                       | 6.74                          | 8.82                          | 6.46                                   | 9.11    | 5.83    | 9.73   | 4.26    | 11.30  |
| 190.0                       | 6.99                          | 8.80                          | 6.72                                   | 9.07    | 6.14    | 9.66   | 4.64    | 11.15  |
| 195.0                       | 7.14                          | 8.88                          | 6.89                                   | 9.13    | 6.33    | 9.70   | 4.89    | 11.13  |
| 200.0                       | 7.13                          | 9.11                          | 6.89                                   | 9.35    | 6.37    | 9.87   | 5.02    | 11.22  |
| 210.0                       | 6.99                          | 9.67                          | 6.78                                   | 9.88    | 6.32    | 10.34  | 5.12    | 11.54  |
| 220.0                       | 7.12                          | 9.95                          | 6.94                                   | 10.13   | 6.53    | 10.54  | 5.46    | 11.60  |
| 225.0                       | 7.05                          | 10.21                         | 6.88                                   | 10.38   | 6.50    | 10.76  | 5.50    | 11.76  |
| 230.0                       | 7.07                          | 10.39                         | 6.92                                   | 10.54   | 6.56    | 10.89  | 5.63    | 11.82  |
| 240.0                       | 6.95                          | 10.88                         | 6.82                                   | 11.01   | 6.51    | 11.31  | 5.70    | 12.13  |
| 250.0                       | 7.02                          | 11.16                         | 6.91                                   | 11.27   | 6.65    | 11.53  | 5.96    | 12.22  |
| 260.0                       | 7.07                          | 11.45                         | 6.97                                   | 11.54   | 6.76    | 11.76  | 6.16    | 12.36  |
| 270.0                       | 6.83                          | 12.02                         | 6.75                                   | 12.10   | 6.57    | 12.27  | 6.08    | 12.77  |
| 275.0                       | 6.78                          | 12.23                         | 6.71                                   | 12.30   | 6.55    | 12.46  | 6.11    | 12.90  |
| 280.0                       | 6.92                          | 12.24                         | 6.86                                   | 12.30   | 6.72    | 12.44  | 6.33    | 12.83  |
| 290.0                       | 7.09                          | 12.38                         | 7.04                                   | 12.43   | 6.93    | 12.54  | 6.62    | 12.84  |
| 300.0                       | 7.15                          | 12.61                         | 7.12                                   | 12.64   | 7.05    | 12.71  | 6.85    | 12.91  |
| 310.0                       | 7.19                          | 12.85                         | 7.17                                   | 12.87   | 7.13    | 12.91  | 7.02    | 13.03  |
| 320.0                       | 7.16                          | 13.17                         | 7.16                                   | 13.17   | 7.15    | 13.18  | 7.12    | 13.21  |
| 325.0                       | 7.11                          | 13.35                         | 7.11                                   | 13.35   | 7.11    | 13.35  | 7.11    | 13.35  |
| 330.0                       | 7.10                          | 13.49                         | 7.10                                   | 13.49   | 7.11    | 13.48  | 7.14    | 13.45  |
| 340.0                       | 7.17                          | 13.67                         | 7.19                                   | 13.66   | 7.23    | 13.62  | 7.35    | 13.50  |
| 350.0                       | 7.20                          | 13.90                         | 7.23                                   | 13.88   | 7.29    | 13.81  | 7.46    | 13.64  |
| 360.0                       | 7.23                          | 14.11                         | 7.26                                   | 14.08   | 7.35    | 14.00  | 7.58    | 13.76  |
| 370.0                       | 7.12                          | 14.47                         | 7.17                                   | 14.42   | 7.28    | 14.30  | 7.61    | 13.97  |
| 375.0                       | 7.02                          | 14.68                         | 7.07                                   | 14.63   | 7.20    | 14.51  | 7.56    | 14.14  |
| 380.0                       | 7.13                          | 14.69                         | 7.19                                   | 14.63   | 7.32    | 14.50  | 7.71    | 14.10  |
| 390.0                       | 7.07                          | 14.97                         | 7.13                                   | 14.91   | 7.28    | 14.77  | 7.70    | 14.34  |
| 400.0                       | 7.09                          | 15.17                         | 7.16                                   | 15.10   | 7.32    | 14.94  | 7.81    | 14.45  |
| 425.0                       | 6.90                          | 15.88                         | 6.99                                   | 15.80   | 7.19    | 15.59  | 7.82    | 14.97  |
| 450.0                       | 6.97                          | 16.31                         | 7.07                                   | 16.21   | 7.32    | 15.96  | 8.08    | 15.20  |
| 475.0                       | 7.00                          | 16.75                         | 7.12                                   | 16.63   | 7.42    | 16.34  | 8.31    | 15.44  |
| 500.0                       | 7.06                          | 17.14                         | 7.20                                   | 17.00   | 7.52    | 16.68  | 8.52    | 15.68  |
| 520.0                       | 7.11                          | 17.43                         | 7.25                                   | 17.29   | 7.60    | 16.94  | 8.68    | 15.86  |
| 550.0                       | 6.69                          | 18.33                         | 6.85                                   | 18.18   | 7.23    | 17.80  | 8.41    | 16.61  |
| 580.0                       | 6.81                          | 18.68                         | 6.98                                   | 18.51   | 7.38    | 18.11  | 8.64    | 16.85  |
| 600.0                       | 6.73                          | 19.05                         | 6.91                                   | 18.88   | 7.33    | 18.45  | 8.67    | 17.11  |
| <b>Bezugs-<br/>punkt:</b>   | <b>Strahlungs-<br/>-zone:</b> | <b>Strahlungs-<br/>-zone:</b> | <b>Mitte der Log. - Per. Struktur</b>  |         |         |        |         |        |
| <b>Reference<br/>Point:</b> | <b>Radiating<br/>Zone:</b>    | <b>Radiating<br/>Zone:</b>    | <b>Center of Log. - Per. Structure</b> |         |         |        |         |        |

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| Frequency                         | Gain(Iso.)                          | Ant.-Fact k                         | gi (10 m)                              | k (10m) | gi (3m) | k (3m) | gi (1m) | k (1m) |
|-----------------------------------|-------------------------------------|-------------------------------------|--|---------|---------|--------|---------|--------|
| Frequenz                          | Gewinn                              | Ant.Faktor                          | gi (10 m)                              | k (10m) | gi (3m) | k (3m) | gi (1m) | k (1m) |
| MHz                               | dBi                                 | dB/m                                | dBi                                    | dB/m    | dBi     | dB/m   | dBi     | dB/m   |
| 620.0                             | 6.70                                | 19.36                               | 6.88                                   | 19.18   | 7.33    | 18.74  | 8.75    | 17.32  |
| 650.0                             | 6.68                                | 19.79                               | 6.87                                   | 19.61   | 7.34    | 19.14  | 8.84    | 17.64  |
| 680.0                             | 6.74                                | 20.13                               | 6.94                                   | 19.93   | 7.43    | 19.44  | 9.01    | 17.86  |
| 700.0                             | 6.78                                | 20.34                               | 6.99                                   | 20.14   | 7.49    | 19.63  | 9.11    | 18.02  |
| 750.0                             | 6.83                                | 20.89                               | 7.05                                   | 20.67   | 7.59    | 20.14  | 9.33    | 18.39  |
| 800.0                             | 6.69                                | 21.60                               | 6.92                                   | 21.36   | 7.48    | 20.80  | 9.31    | 18.98  |
| 850.0                             | 6.95                                | 21.86                               | 7.19                                   | 21.62   | 7.77    | 21.04  | 9.68    | 19.12  |
| 900.0                             | 6.53                                | 22.78                               | 6.78                                   | 22.53   | 7.38    | 21.92  | 9.38    | 19.92  |
| 950.0                             | 6.30                                | 23.48                               | 6.56                                   | 23.22   | 7.18    | 22.59  | 9.27    | 20.50  |
| 1000.0                            | 6.70                                | 23.52                               | 6.96                                   | 23.26   | 7.60    | 22.62  | 9.74    | 20.48  |
| 1050.0                            | 6.67                                | 23.98                               | 6.93                                   | 23.71   | 7.59    | 23.06  | 9.77    | 20.88  |
| 1100.0                            | 6.10                                | 24.95                               | 6.37                                   | 24.67   | 7.05    | 24.00  | 9.32    | 21.72  |
| 1150.0                            | 5.92                                | 25.52                               | 6.20                                   | 25.24   | 6.88    | 24.55  | 9.21    | 22.23  |
| 1200.0                            | 6.35                                | 25.46                               | 6.63                                   | 25.17   | 7.33    | 24.47  | 9.70    | 22.10  |
| 1300.0                            | 5.90                                | 26.60                               | 6.19                                   | 26.31   | 6.91    | 25.59  | 9.38    | 23.12  |
| 1400.0                            | 5.15                                | 27.99                               | 5.45                                   | 27.70   | 6.18    | 26.96  | 8.69    | 24.45  |
| 1500.0                            | 5.29                                | 28.45                               | 5.59                                   | 28.15   | 6.33    | 27.41  | 8.90    | 24.84  |
| 1600.0                            | 3.61                                | 30.69                               | 3.92                                   | 30.38   | 4.69    | 29.61  | 7.35    | 26.95  |
| 1700.0                            | 2.89                                | 31.94                               | 3.20                                   | 31.63   | 3.98    | 30.85  | 6.70    | 28.13  |
| 1800.0                            | 3.45                                | 31.87                               | 3.77                                   | 31.56   | 4.56    | 30.77  | 7.33    | 28.00  |
| 1900.0                            | 2.56                                | 33.23                               | 2.88                                   | 32.92   | 3.67    | 32.12  | 6.44    | 29.36  |
| 2000.0                            | -0.45                               | 36.69                               | -0.13                                  | 36.37   | 0.68    | 35.56  | 3.49    | 32.75  |
| <b>Bezugs-</b><br><b>punkt:</b>   | <b>Strahlungs-</b><br><b>-zone:</b> | <b>Strahlungs-</b><br><b>-zone:</b> | <b>Mitte der Log. - Per. Struktur</b>  |         |         |        |         |        |
| <b>Reference</b><br><b>Point:</b> | <b>Radiating</b><br><b>Zone:</b>    | <b>Radiating</b><br><b>Zone:</b>    | <b>Center of Log. - Per. Structure</b> |         |         |        |         |        |

