09. Nov 05 11:27

E 80 Art.-Nr. 63280 ohne Decoder Modelleisenbahn GmbH Lok max. Geschwindigkeit Manuf: Op Cond:

Operator: Guntermann

EN 55014-1:2000 mit A1:2001 und A2:2002 Tastkopfmessung Ausgang Regler Klemme 1 Test Spec: Comment:

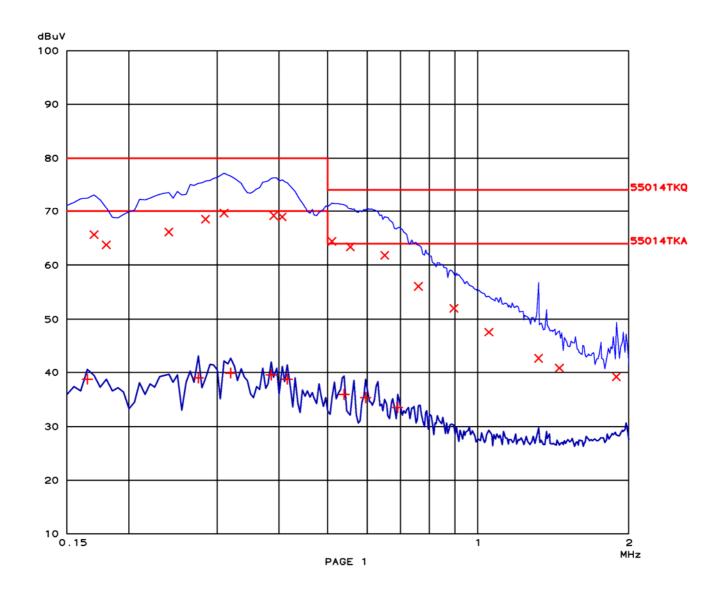
Roco Trafo/Regler

Scan Settings (1 Range)

|----- Frequencies ------| Receiver Settings ------|
Start Stop Step IF BW Detector M-Time Atten Preamp OpRge Step IF BW Detector M-Time Atten Preamp OpRge
5k 10k PK+AV 5ms AUTO LD OFF 60dB 150k 2M

Stop 30M Transducer No. Start Name Final Measurement: x QP / + AV
Meas Time: 5 s
Subranges: 16 6 10k TK9416

Acc Margin: 30dB



E 80 Art.-Nr. 63280 ohne Decoder EUT:

Modelleisenbahn GmbH Manuf: Lok max. Geschwindigkeit Guntermann Op Cond:

Operator:

EN 55014-1:2000 mit A1:2001 und A2:2002 Tastkopfmessung August Test Spec: Comment: Tastkopfmessung Ausgang Regler Klemme 1

Roco Trafo/Regler

Scan Settings (1 Range)

Frequency	QP Level	QP Limit
MHz	dB	dB
0.17000 0.18000 0.24000 0.28500 0.31000 0.39000 0.40500 0.51000 0.55500 0.65000 0.76000 0.89500 1.05000 1.32000 1.45500 1.89500	65.6 63.8 66.2 68.5 69.6 69.3 68.9 64.4 63.8 56.1 52.0 47.5 42.7 40.8 39.2	80.0 80.0 80.0 80.0 80.0 80.0 74.0 74.0 74.0 74.0 74.0 74.0 74.0 7
Frequency	AV Level	AV Limit
MHz	dB	dB
0.16500 0.27500 0.32000 0.38500 0.41500 0.54000 0.59500 0.69000	38.8 39.0 39.9 39.5 38.8 35.9 35.3	70.0 70.0 70.0 70.0 70.0 64.0 64.0

^{*} limit exceeded

09. Nov 05 11:35

E 80 Art.-Nr. 63870 ohne Decoder Modelleisenbahn GmbH Lok max. Geschwindigkeit Manuf: Op Cond:

Guntermann Operator:

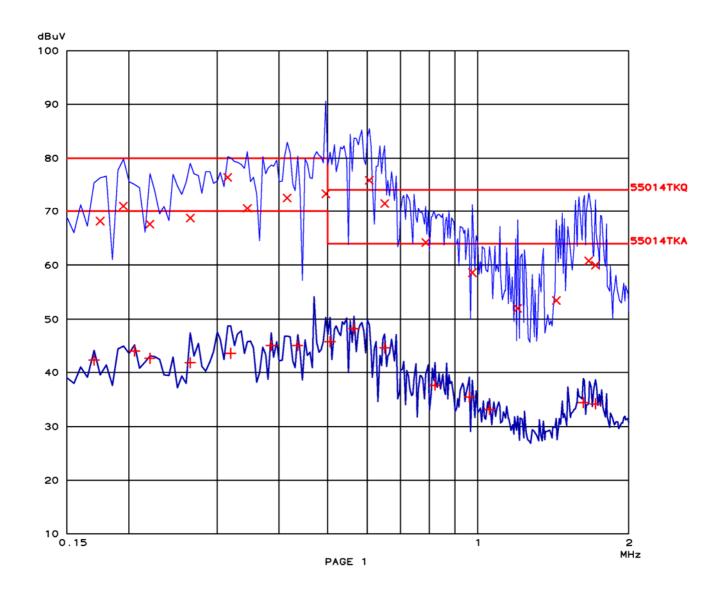
EN 55014-1:2000 mit A1:2001 und A2:2002 Tastkopfmessung Ausgang Trafo Klemme gelb Roco Trafo 10704 Test Spec: Comment:

Scan Settings (1 Range)

|------ Frequencies ------|
Start Stop Step IF BW Detector M-Time Atten Preamp OpRge
150k 2M 5k 10k PK+AV 5ms AUTO LD OFF 60dB

Stop 30M Name Final Measurement: x QP / + AV
Meas Time: 5 s
Subranges: 16 Transducer No. Start 6 10k TK9416

Acc Margin: 30dB



E 80 Art.-Nr. 63870 ohne Decoder EUT:

Modelleisenbahn GmbH Manuf: Lok max. Geschwindigkeit Guntermann Op Cond:

Operator:

Test Spec: EN 55014-1:2000 mit A1:2001 und A2:2002 Comment: Tastkopfmessung Ausgang Trafo Klemme ge Tastkopfmessung Ausgang Trafo Klemme gelb Roco Trafo 10704 Comment:

Scan Settings (1 Range)

Frequency	QP Level	QP Limit
MHz	dBuV	dBuV
0.17500 0.19500 0.22000 0.26500 0.31500 0.34500 0.41500 0.60500 0.60500 0.78500 0.97500 1.20000 1.43500 1.66500	68.2 71.0 67.7 68.8 76.4 70.6 72.6 73.3 75.8* 71.5 64.2 58.6 52.0 53.5 60.8 60.0	80.0 80.0 80.0 80.0 80.0 80.0 80.0 74.0 74.0 74.0 74.0 74.0 74.0 74.0
Frequency	AV Level	AV Limit
MHz	dBuV	dBuV
0.17000 0.20500 0.22000 0.26500 0.32000 0.38500 0.43500 0.50500 0.56500 0.65000 0.82000 0.96000 1.05500 1.62500	42.3 44.0 42.7 41.8 43.6 45.0 45.7 48.2 44.6 37.7 35.5 33.1 34.4 34.2	70.0 70.0 70.0 70.0 70.0 70.0 64.0 64.0 64.0 64.0 64.0 64.0 64.0

^{*} limit exceeded

09. Nov 05 11:48

E 80 Art.-Nr. 63870 mit ESU E80 Decoder Modelleisenbahn GmbH Lok max. Geschwindigkeit Manuf: Op Cond:

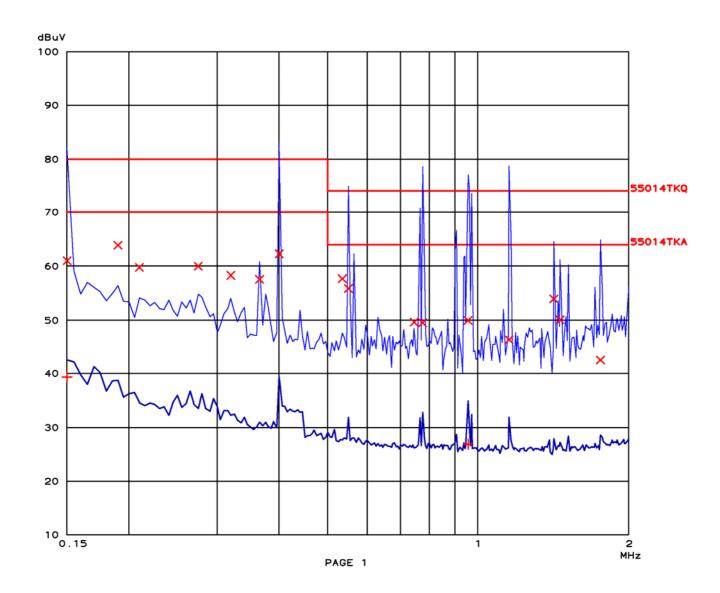
Operator: Guntermann

EN 55014-1:2000 mit A1:2001 und A2:2002 Tastkopfmessung Ausgang Trafo Klemme gelb Roco Trafo 10704 Test Spec: Comment:

Scan Settings (1 Range)

|----- Frequencies ------|
Start Stop Step IF BW Detector M-Time Atten Preamp OpRge
150k 2M 5k 10k PK+AV 20ms AUTO LD OFF 60dB

Name Stop 30M Transducer No. Start 6 10k TK9416



CONDUCTED INTERFERENCE TEST

E 80 Art.-Nr. 63870 mit ESU E80 Decoder EUT:

Modelleisenbahn GmbH Manuf: Lok max. Geschwindigkeit Guntermann Op Cond:

Operator:

EN 55014-1:2000 mit A1:2001 und A2:2002 Test Spec: Tastkopfmessung Ausgang Trafo Klemme gelb Roco Trafo 10704 Comment:

Scan Settings (1 Range)

Frequency	QP Level	QP Limit
MHz	dBuV	dBuV
0.15000 0.19000 0.21000 0.27500 0.32000 0.36500 0.40000 0.53500 0.55000 0.74500 0.77500 0.95500 1.15500	63.8 59.7 60.0 58.3 57.6 62.3 57.7 55.8 49.5 49.5 49.9 46.3	80.0 80.0 80.0 80.0 80.0 80.0 74.0 74.0 74.0 74.0 74.0
1 . 46000 1 . 76000	50.0 42.6	74.0 74.0 74.0
Frequency	AV Level	AV Limit
MHz	dBuV	dBuV
0.15000	39.3	70.0
0.95500	26.9	64.0

^{*} limit exceeded

09. Nov 05 12:04

E 80 Art.-Nr. 63870 mit ESU BR03 Decoder Modelleisenbahn GmbH Lok max. Geschwindigkeit Manuf: Op Cond:

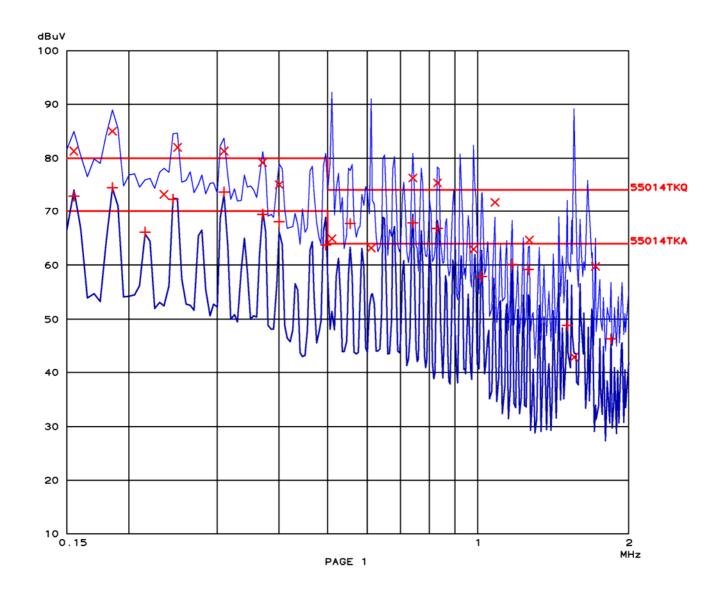
Operator: Guntermann

EN 55014-1:2000 mit A1:2001 und A2:2002 Tastkopfmessung Ausgang Trafo Klemme gelb Roco Trafo 10704 Test Spec: Comment:

Scan Settings (1 Range)

|----- Frequencies ------|
Start Stop Step IF BW Detector M-Time Atten Preamp OpRge
150k 2M 5k 10k PK+AV 20ms AUTO LD OFF 60dB

Name Stop 30M Final Measurement: x QP / + AV
Meas Time: 5 s
Subranges: 16
Acc Margin: 30dB Transducer No. Start 6 10k TK9416



E 80 Art.-Nr. 63870 mit ESU BR03 Decoder EUT:

Manuf: Modelleisenbahn GmbH Lok max. Geschwindigkeit Guntermann Op Cond:

Operator:

Test Spec: EN 55014-1:2000 mit A1:2001 und A2:2002 Comment: Tastkopfmessung Ausgang Trafo Klemme ge Tastkopfmessung Ausgang Trafo Klemme gelb Roco Trafo 10704 Comment:

Scan Settings (1 Range)

Frequency	QP Level	QP Limit
MHz	dBuV	dBuV
0.15500 0.18500 0.23500 0.25000 0.31000 0.37000 0.40000 0.51000 0.61000 0.74000 0.83000 0.98000 1.08000 1.26500 1.55500	81.4* 84.9* 73.2 82.0* 81.3* 79.1 75.1 64.9 63.2 76.3* 75.4* 63.0 71.8 64.7 42.9 59.7	80.0 80.0 80.0 80.0 80.0 80.0 74.0 74.0 74.0 74.0 74.0 74.0 74.0 7
Frequency	AV Level	
MHz	dBuV	dBuV
0.15500 0.18500 0.21500 0.24500 0.31000 0.37000 0.40000 0.49500 0.74000 0.83000 1.01500 1.17000 1.26000 1.51000 1.84500	72.9* 74.5* 66.1 72.3* 73.7* 69.4 68.1 63.8 67.7* 67.8* 66.9* 57.9 60.1 59.2 48.8 46.3	70.0 70.0 70.0 70.0 70.0 70.0 70.0 64.0 64.0 64.0 64.0 64.0 64.0 64.0

^{*} limit exceeded

09. Nov 05 12:14

E 80 Art.-Nr. 63870 mit ESU BR03 Decoder Modelleisenbahn GmbH Lok max. Geschwindigkeit Manuf: Op Cond:

Operator: Guntermann

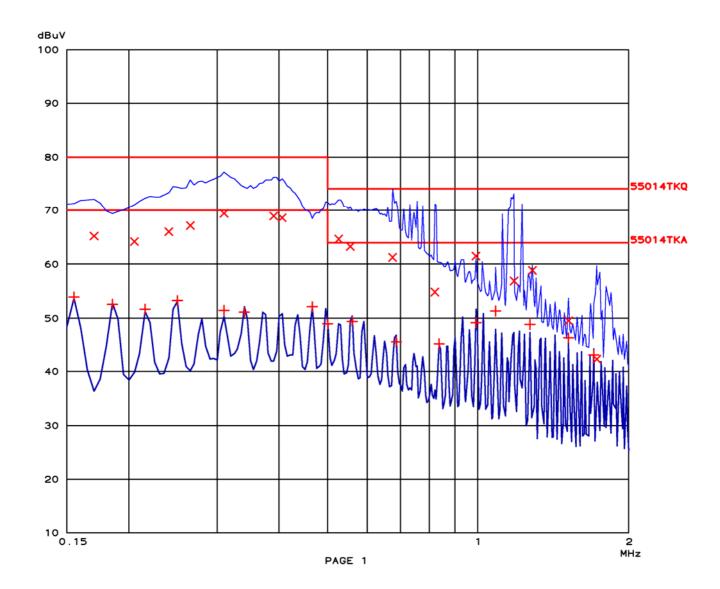
EN 55014-1:2000 mit A1:2001 und A2:2002 Tastkopfmessung Ausgang Regler Klemme 1 Test Spec: Comment:

Roco Trafo/Regler

Scan Settings (1 Range)

|----- Frequencies ------|
Start Stop Step IF BW Detector M-Time Atten Preamp OpRge
150k 2M 5k 10k PK+AV 20ms AUTO LD OFF 60dB

Name Stop 30M Transducer No. Start 6 10k TK9416



E 80 Art.-Nr. 63870 mit ESU BR03 Decoder EUT:

Manuf: Modelleisenbahn GmbH Lok max. Geschwindigkeit Guntermann Op Cond:

Operator:

EN 55014-1:2000 mit A1:2001 und A2:2002 Test Spec: Comment: Tastkopfmessung Ausgang Regler Klemme 1

Roco Trafo/Regler

Scan Settings (1 Range)

Frequency	QP Level	QP Limit
MHz	dBuV	dBuV
0.17000 0.20500 0.24000 0.26500 0.31000 0.39000 0.40500 0.52500 0.55500 0.67500 0.82000 0.99000 1.18000 1.28500 1.52000 1.73000	65.2 64.2 66.1 67.2 69.4 69.0 68.6 64.7 63.3 61.2 54.8 61.5 56.9 58.8 49.5 42.3	80.0 80.0 80.0 80.0 80.0 80.0 74.0 74.0 74.0 74.0 74.0 74.0 74.0 7
Frequency	AV Level	AV Limit
MHz	dBuV	dBuV
0.15500 0.18500 0.21500 0.25000 0.31000 0.34000 0.46500	53.9 52.5 51.6 53.2 51.4 51.1 52.2	70.0 70.0 70.0 70.0 70.0 70.0

^{*} limit exceeded

09. Nov 05 12:20

E 80 Art.-Nr. 63870 mit ESU BR03 Decoder Modelleisenbahn GmbH Lok max. Geschwindigkeit Manuf: Op Cond:

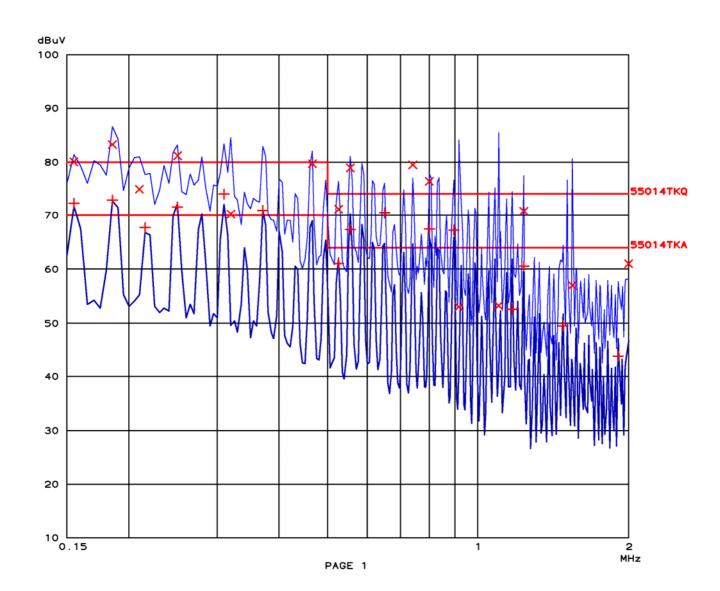
Operator: Guntermann

EN 55014-1:2000 mit A1:2001 und A2:2002 Tastkopfmessung Ausgang Trafo Klemme blau Trix Trafo Compact Vario 56-5550-00 Test Spec: Comment:

Scan Settings (1 Range)

|------ Frequencies -------|
Start Stop Step IF BW Detector M-Time Atten Preamp OpRge
150k 2M 5k 10k PK+AV 20ms AUTO LD OFF 60dB

Name Stop 30M Transducer No. Start 6 10k TK9416



EUT: E 80 Art.-Nr. 63870 mit ESU BR03 Decoder

Manuf: Modelleisenbahn GmbH
Op Cond: Lok max. Geschwindigkeit

Operator: Guntermann

Test Spec: EN 55014-1:2000 mit A1:2001 und A2:2002 Comment: Tastkopfmessung Ausgang Trafo Klemme blau Trix Trafo Compact Vario 56-5550-00

Scan Settings (1 Range)

Frequency	QP Level	QP Limit
MHz	dBuV	dBuV
0.15500 0.18500 0.21000 0.25000 0.32000 0.46500 0.52500 0.74000 0.80000 0.91500 1.10000 1.23500 1.54500 2.00000	80.1* 83.2* 74.9 81.1* 70.2 79.7 71.1 78.9* 76.4* 53.0 53.3 70.8 57.0 61.0	80.0 80.0 80.0 80.0 80.0 74.0 74.0 74.0 74.0 74.0 74.0 74.0 7
Frequency	AV Level	AV Limit
MHz	dBuV	dBuV
0.15500 0.18500 0.21500 0.25000 0.31000 0.37000 0.52500 0.55500 0.65000 0.80000 0.89500 1.17000 1.23500 1.48000 1.91000	72.3* 72.8* 67.7 71.6* 74.1* 70.9* 61.0 67.4* 70.4* 67.5* 67.2* 52.5 60.5 49.4 43.7	70.0 70.0 70.0 70.0 70.0 64.0 64.0 64.0 64.0 64.0 64.0 64.0 6

^{*} limit exceeded

09. Nov 05 12:29

E 80 Art.-Nr. 63870 mit ESU BR03 Decoder

Modelleisenbahn GmbH Lok max. Geschwindigkeit Manuf: Op Cond:

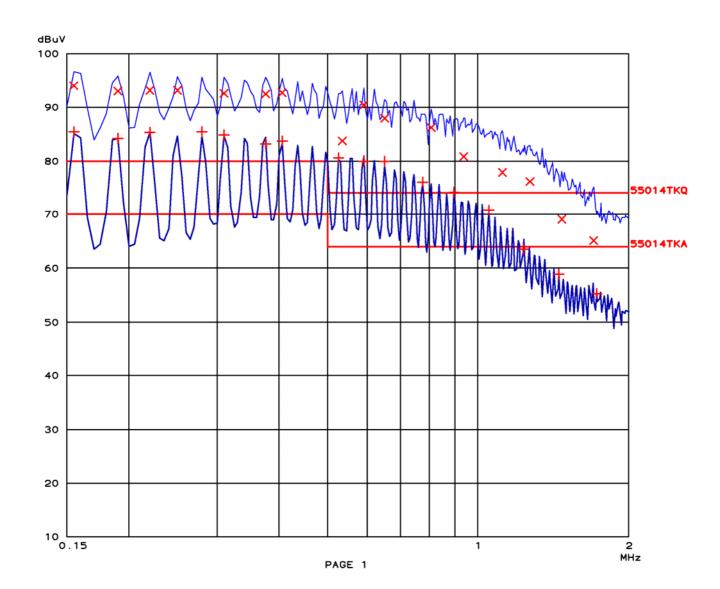
Operator: Guntermann

EN 55014-1:2000 mit A1:2001 und A2:2002 Tastkopfmessung Ausgang Trafo Klemme blau Piko Trafo 55002 (Steger 43-001 0) Test Spec: Comment:

Scan Settings (1 Range)

|------ Frequencies ------|
Start Stop Step IF BW Detector M-Time Atten Preamp OpRge
150k 2M 5k 10k PK+AV 20ms AUTO LD OFF 60dB

Name Stop 30M Transducer No. Start 6 10k TK9416



E 80 Art.-Nr. 63870 mit ESU BR03 Decoder EUT:

Manuf: Modelleisenbahn GmbH Op Cond: Lok max. Geschwindigkeit

Operator: Guntermann

Test Spec: EN 55014-1:2000 mit A1:2001 und A2:2002 Tastkopfmessung Ausgang Trafo Klemme blau Piko Trafo 55002 (Steger 43-001 0) Comment:

Scan Settings (1 Range)

	Frequencies			Rece	eiver Settings	
Start	Stop	Step	IF BW	Detector	M-Time Atten Preamp	OpRge
150k	2M	5k	10k	PK+AV	20ms AUTO LD OFF	60dB

Frequency	QP Level	QP Limit
MHz	dBuV	dBuV
0.15500 0.19000 0.22000 0.25000 0.31000 0.37500 0.40500 0.53500 0.59000 0.65000 0.80500 0.93500 1.12000 1.27000 1.47000	94.1* 93.0* 93.2* 93.1* 92.6* 92.5* 92.8* 83.7* 90.5* 88.0* 86.2* 80.8* 77.9* 76.1* 69.1	80.0 80.0 80.0 80.0 80.0 80.0 74.0 74.0 74.0 74.0 74.0 74.0 74.0 7
Frequency	AV Level	AV Limit
MHz	dBuV	dBuV
0.15500 0.19000 0.22000 0.28000 0.31000 0.37500 0.40500 0.52500 0.59000 0.65000 0.77500 0.89500 1.05000 1.23500	85.4* 84.1* 85.3* 85.4* 84.9* 83.2* 83.7* 79.9* 76.0* 74.2* 70.8* 63.5 58.8	70.0 70.0 70.0 70.0 70.0 70.0 64.0 64.0 64.0 64.0 64.0 64.0

^{*} limit exceeded

09. Nov 05 12:39

E 80 Art.-Nr. 63870 mit ESU BR03 Decoder Modelleisenbahn GmbH Lok max. Geschwindigkeit Manuf: Op Cond:

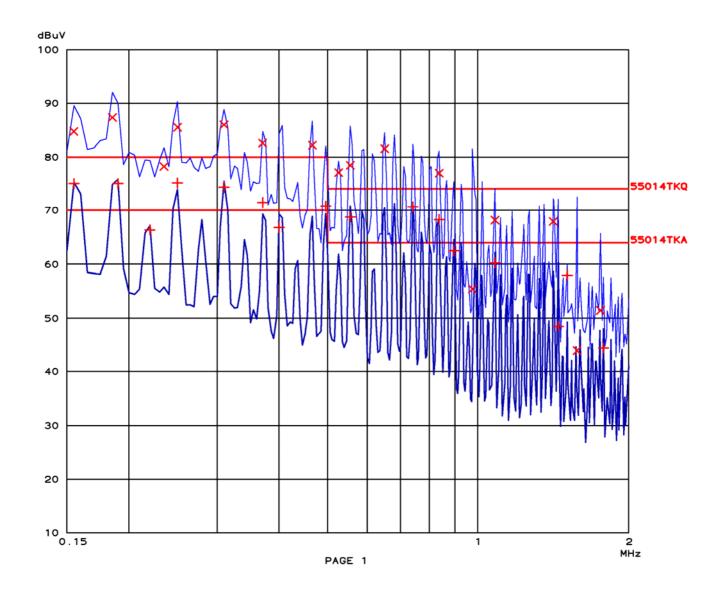
Operator: Guntermann

EN 55014-1:2000 mit A1:2001 und A2:2002 Tastkopfmessung Ausgang Trafo Klemme blau Trix Trafo 56-5503-00 Test Spec: Comment:

Scan Settings (1 Range)

|----- Frequencies ------|
Start Stop Step IF BW Detector M-Time Atten Preamp OpRge
150k 2M 5k 10k PK+AV 20ms AUTO LD OFF 60dB

Name Stop 30M Transducer No. Start 6 10k TK9416



E 80 Art.-Nr. 63870 mit ESU BR03 Decoder EUT:

Manuf: Modelleisenbahn GmbH Lok max. Geschwindigkeit Guntermann Op Cond:

Operator:

Test Spec: EN 55014-1:2000 mit A1:2001 und A2:2002 Comment: Tastkopfmessung Ausgang Trafo Klemme bla Tastkopfmessung Ausgang Trafo Klemme blau Trix Trafo 56-5503-00

Scan Settings (1 Range)

Frequency	QP Level	QP Limit
MHz	dBuV	dBuV
0.15500 0.18500 0.23500 0.25000 0.31000 0.37000 0.46500 0.52500 0.55500 0.65000 0.83500 0.97500 1.08000 1.41500 1.58000	84.7* 87.4* 78.3 85.5* 85.9* 82.6* 77.1* 78.6* 77.0* 55.4 68.2 67.9 43.8 51.4	80.0 80.0 80.0 80.0 80.0 80.0 74.0 74.0 74.0 74.0 74.0 74.0 74.0 7
Frequency	AV Level	AV Limit
MHz	dBuV	dBuV
0.15500 0.19000 0.22000 0.25000 0.31000 0.37000 0.40000 0.49500 0.55500 0.74000 0.83500 0.89500 1.08000 1.44500 1.51000	75.0* 75.0* 76.4 75.1* 74.4* 71.5* 66.8 70.8* 68.8* 70.7* 68.3* 62.5 60.3 48.5 57.9	70.0 70.0 70.0 70.0 70.0 70.0 70.0 64.0 64.0 64.0 64.0 64.0

^{*} limit exceeded

09. Nov 05 12:46

E 80 Art.-Nr. 63870 mit ESU BR03 Decoder Modelleisenbahn GmbH Lok max. Geschwindigkeit Manuf: Op Cond:

Operator: Guntermann

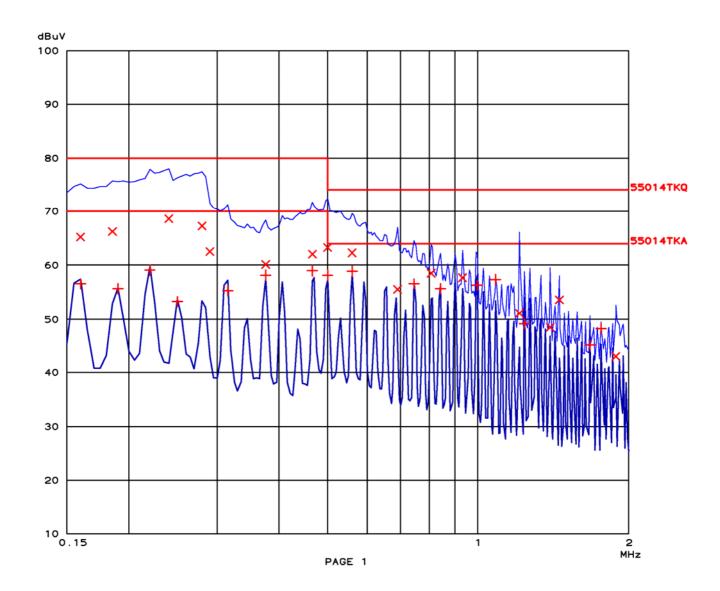
EN 55014-1:2000 mit A1:2001 und A2:2002 Tastkopfmessung Ausgang Regler Klemme blau Test Spec: Comment:

Trix Trafo/Regler 612086

Scan Settings (1 Range)

|----- Frequencies -----|
| Start Stop Step IF BW Detector M-Time Atten Preams OnPose Step IF BW Detector M-Time Atten Preamp OpRge
5k 10k PK+AV 20ms AUTO LD OFF 60dB 150k 2M

Name Stop 30M Final Measurement: x QP / + AV
Meas Time: 5 s
Subranges: 16
Acc Margin: 30dB Transducer No. Start 6 10k TK9416



E 80 Art.-Nr. 63870 mit ESU BR03 Decoder EUT:

Manuf: Modelleisenbahn GmbH Lok max. Geschwindigkeit Guntermann Op Cond:

Operator:

Test Spec: EN 55014-1:2000 mit A1:2001 und A2:2002 Comment: Tastkopfmessung Ausgang Regler Klemme bi Tastkopfmessung Ausgang Regler Klemme blau

Trix Trafo/Regler 612086

Scan Settings (1 Range)

Frequency	QP Level	QP Limit
MHz	dBuV	dBuV
0.16000 0.18500 0.24000 0.28000 0.29000 0.37500 0.46500 0.50000 0.56000 0.69000 0.80500 0.93000 1.21000 1.39500 1.45500 1.89000	65.3 66.3 68.6 67.2 62.4 60.1 62.0 63.2 62.2 55.5 58.5 57.7 51.1 48.5 53.6 43.0	80.0 80.0 80.0 80.0 80.0 80.0 74.0 74.0 74.0 74.0 74.0 74.0 74.0 7
Frequency		
MHz	dBuV	dBuV
0.16000 0.19000 0.22000 0.25000 0.31500 0.37500 0.46500 0.50000 0.56000 0.74500 0.84000 0.99500 1.08500 1.24000	56.5 55.6 59.1 53.3 55.3 58.2 58.9 58.2 58.9 56.6 55.7 56.4 57.4 49.1	70.0 70.0 70.0 70.0 70.0 70.0 64.0 64.0 64.0 64.0 64.0 64.0

^{*} limit exceeded