

Contents

Page

Foreword	4
1 Scope	5
1.1 General	5
1.2 Specific scope of EN 50083-8	5
2 Normative references	6
3 Terms, definitions, symbols and abbreviations	6
3.1 Terms and definitions	6
3.2 Symbols	9
3.3 Abbreviations	9
4 Methods of measurement	11
4.1 Basic principles	10
4.2 Radiation from cable networks	10
4.2.1 General	10
4.2.2 Field strength method	11
4.2.3 Subcarrier measurement procedure	12
4.2.4 GPS based leakage detection system	13
4.3 Immunity of cable networks	13
4.3.1 General	13
4.3.2 Measurement procedure for interference caused by high-power local transmitter	13
5 Performance requirements	14
5.1 General conditions	14
5.2 Radiation from cable networks and other sources	14
5.2.1 General	14
5.2.2 Measurement of the total radiation	14
5.2.3 Measurement of narrowband radiation	15
5.3 Immunity of cable networks	16
Annex A (informative) A-deviations	18
A.1 United Kingdom	18
A.1.1 Regulation	18
A.1.2 Principle	18
A.1.3 Equipment	18
A.1.4 Measurement frequencies	18
A.1.5 Procedure	19
A.1.6 Expression of results	19
A.1.7 Permitted limits	20
A.1.8 Interpretation	20
A.1.9 Bibliography of A.1	22
A.2 United Kingdom	22
A.2.1 Regulation	22
A.2.2 Principle	22
A.2.3 Equipment	22
A.2.4 Measurement frequencies	22
A.2.5 Procedure	23
A.2.6 Permitted limits	23
A.2.7 Interpretation	24
A.2.8 Bibliography of A.2	24
A.3 Finland	25
A.4 Germany	25

Annex B (informative) Frequency ranges of typical safety of life services	28
Annex C (informative) Interdependence between the maximum allowable field strength and the minimum signal level at system outlet.....	29
Annex D (informative) Measurements in other distances than the standard distance of 3 m	31
D.1 Measurement at a reduced distance below 3 m	31
D.2 Measurement at measurement distances above 3 m	31
Annex E (informative) GPS based leakage detection system for cable networks	32
E.1 General	32
E.2 Automated data collection by driving through the HFC network.....	32
E.3 Tagging of the signal	32
E.4 Post processing the collected data and visualisation of leakages	32
E.5 On site location of the leak.....	32
Bibliography.....	33
Figure A.1 – Arrangement of test equipment for the measurement of radiation from complete systems	20
Table 1 – Limits of total radiation	15
Table 2 – Narrowband radiation limits	15
Table 3 – Maximum expected field strength	16
Table 4 – Required carrier-to-interference ratio	17
Table A.1 – Radiation from complete systems: maximum permitted field strengths	21
Table A.2 – Distance correction factor	22
Table A.3 – Radiation from complete systems: maximum permitted field strengths	24
Table A.4 – Distance correction factor	24
Table A.5 – Protection of particular frequency ranges according to § 3 of the Order	25
Table A.6 – Field strength limit values at 3 m distance from line-bound telecommunications facilities and networks.....	27
Table B.1 – Frequency ranges of typical safety of life services	28