
等方性光電界センサヘッド (SH-10TS)

Isotropic Optical E-field Sensor Head (SH-10TS)

Ver.1.1

November 12, 2021

Seikoh Giken Co., Ltd.

1.適用 Scope

本仕様書は等方性光電界センサヘッドに適用する。

This specification applies to Isotropic Optical E-field Sensor Head.

2.型名 Product code

Table 1

Product code	Remarks
SH-10TS	Wideband type

3.付属品 Accessories

Table 2

Item	Quantity	Remarks
Optical adapter	3	SC/APC
Optical fiber (3cores)	1	L=10m φ3mm (SC/APC-SC/APC) φ5mm Main cable(3cores)
Fixed positioning Jig	1	For SH-10TS

4.環境条件 Standard operating conditions

Table 3

Item	Specification				Remarks
	Min.	Typ.	Max.	Unit	
Operating temperature range	20		30	°C	—
Operating humidity range	45		90	%RH	—
Storage temperature range	-20		60	°C	—
SET-up location	Indoor use only				—

Note : Refrain from dew condensation

5.定格 Rating

Table 4

Item	Specification				Remarks
	Min.	Typ.	Max.	Min.	
Frequency range	0.1		10,000	MHz	—
Absolute maximum rating of E-field strength *1			1,000	V/m	—
Number of Optical fiber	3				—
Optical I/O connector	SC/APC				—
Optical fiber length	1.0±0.1m				φ2mm
Case material	ROHACELL [®] 71HF				High close PMI foam material

*1 : 強電界にさらされると破損の恐れがあります。詳細はお問い合わせ下さい。

*1: When the sensor head is exposed to the strong E-field, it may be damaged. Please contact us if you'd like further information.

6.外観図 External

SH-10TS

付図:SOEFS-E034-01による。

The probe head is shown in Fig. SOEFS-E***-01

7.性能 Performance*2

1) 標準コントローラ(精工技研標準機)と光ファイバコード(SMF,10m)との組み合わせ性能

Combination performance with standard controller (Seikoh Giken standard) and with optical fiber code (SMF,10m).

Table 5

Item		Specification				Remarks
		Min.	Typ.	Max.	Min.	
Frequency range		0.1		10,000	MHz	—
Measurement E-field strength*2	<300MHz	0.3		500	V/m	S/N when minimum input: ≥6dB @301MHz (RBW:10Hz VBW:1Hz) when maximum input: Design certification
	≥300MHz	0.01				
Isotropic				±1	dB	Impressed E-field strength: 6V/m @301MHz

*2: 本等方性光電界センサは国際標準にトレーサブルではありません。トレサビリティが必要な場合には、ご相談下さい。

*2: This Isotropic optical E-field sensor is not traceable to international standards. The traceability is required of it, please contact us.

2) 機械的性能 Mechanical Performance*3

Table 6

Item	Test Method*3	Specification
Impact Resistance	Fall height : 1m Thickness of colliding hardwood : 50mm 3 drops 3 tests	The variation amount of optical insertion loss : ±0.5dB MAX
Swing impact Resistance	Swing length : 1m Thickness of colliding hardwood : 50mm 3 drops 1 tests	
Tensile Resistance	Static load due to weight equivalent to 20 N. Retention time : 1 minute	

*3: 上記項目は機械強度試験項目です。各項目負荷の1/2未満でご使用ください。

*3: The above items are mechanical strength test items. Please use less than half the load in each item.

8.検査 Inspection

別途打ち合わせによる。

To be discussed.

9.保証 Warranty

本製品に関し、構成部品の故障や製造上の欠陥に対して納入日から1年間無償修理保証致します。
但し、本保証は製品の正常な使用において発生した故障のみに適用いたします。
次に該当する故障の場合は保証対象外とさせていただきます。

- 1)取り扱い上の誤り、過失による故障
- 2)当社以外による改造や修理による故障
- 3)落下、衝撃等の偶発的事故による故障
- 4)自然災害による故障
- 5)取扱説明書、別途取り交わした仕様書などに記載された以外の不適切な取り扱い、
過酷な環境・条件に起因した故障
- 6)その他、当社が想定できない外部要因による故障

In one year after the arrival of the product, we will guarantee to repair free of charge.

However, this guarantee is limited in the malfunction which is followed according to this Operation Manual or which is obviously responsible for us.

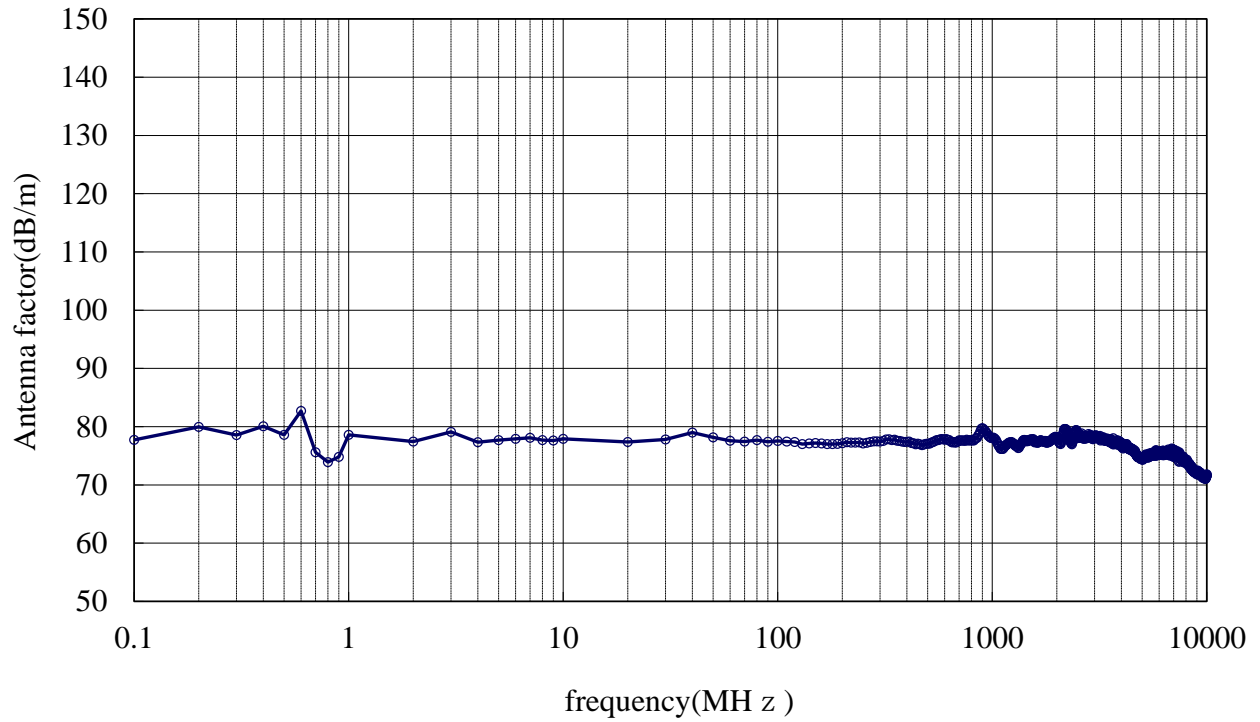
Also following cases is not adapted to our guarantee although in the guarantee period.

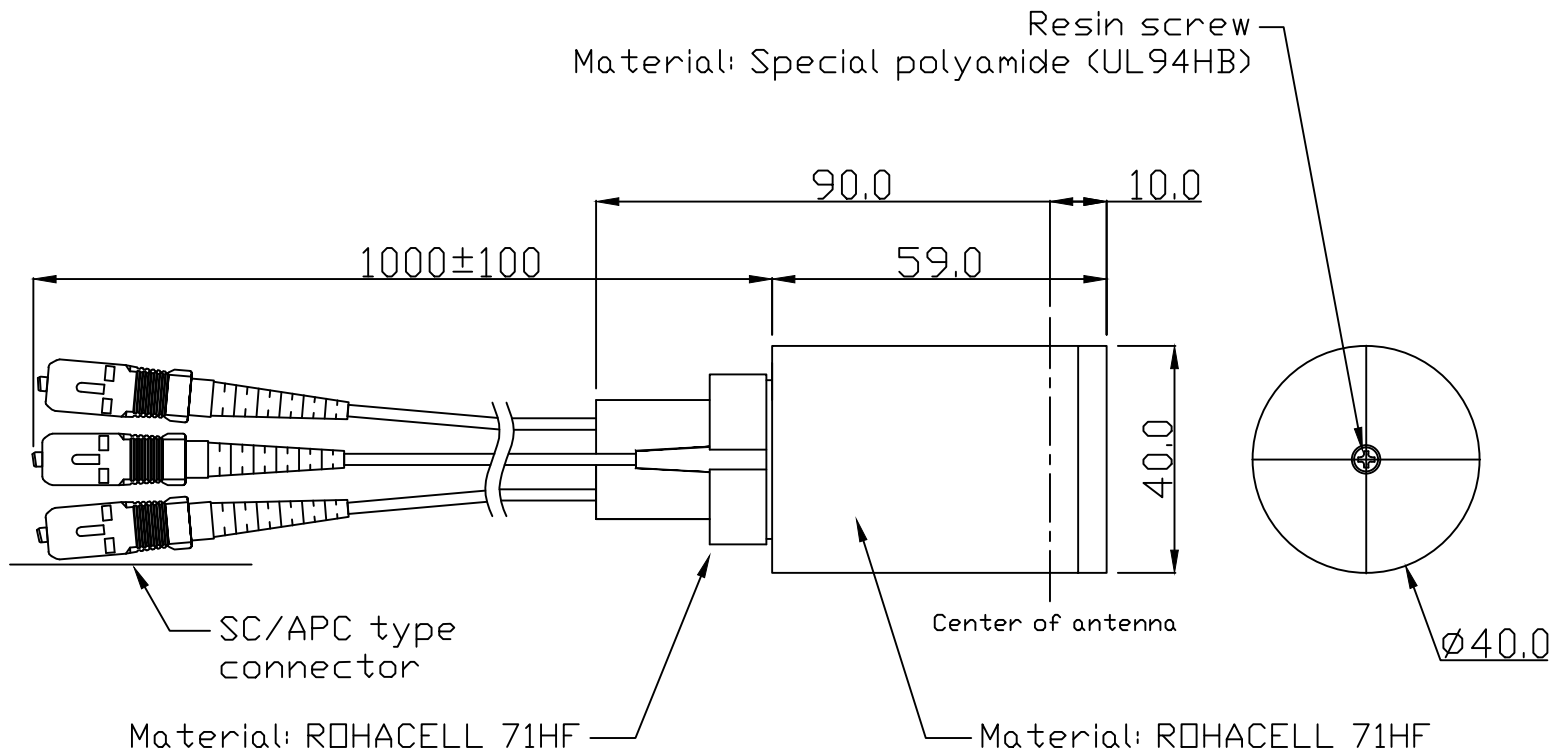
- 1) Damage caused by the miss of operation.
 - 2) Damage caused by a repair or calibration carried out by user side.
 - 3) Damage caused by an accidental shock at user's side.
 - 4) Damage caused by natural disaster.
 - 5) Damage caused by wrong operation and tough condition which is not written in
"Operation Manual".
 - 6) Damage caused from an other outside accident.
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10.ご参考資料 Reference

等方性光電界センサヘッドの標準コントローラとの組み合わせでの周波数に対するアンテナファクタ

Antenna factor to frequency using standard controller.





Rev.	DESIGN CHANGE	Date	2019.10.31	TITLE:	SH-10TS type Isotropic Optical E-field sensor head External
		Rev.	1.0	DWG.No.:	
		UNIT	[mm]	S0EFS-E034-01	
		SCALE	Free	SEIKOH GIKEN Co.,Ltd.	
		TOLERANCE	±1		
		APPROVED	Y.Toba		
		CHECKED	J.Ichijou		
		DRAWN	T.Yamauchi		