

# Technical Datasheet for ANT-M047A

Dexerials Corporation

May. 13, 2016

# ANT-M047A Drawing

(Notes)

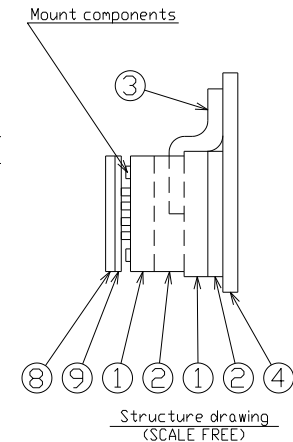
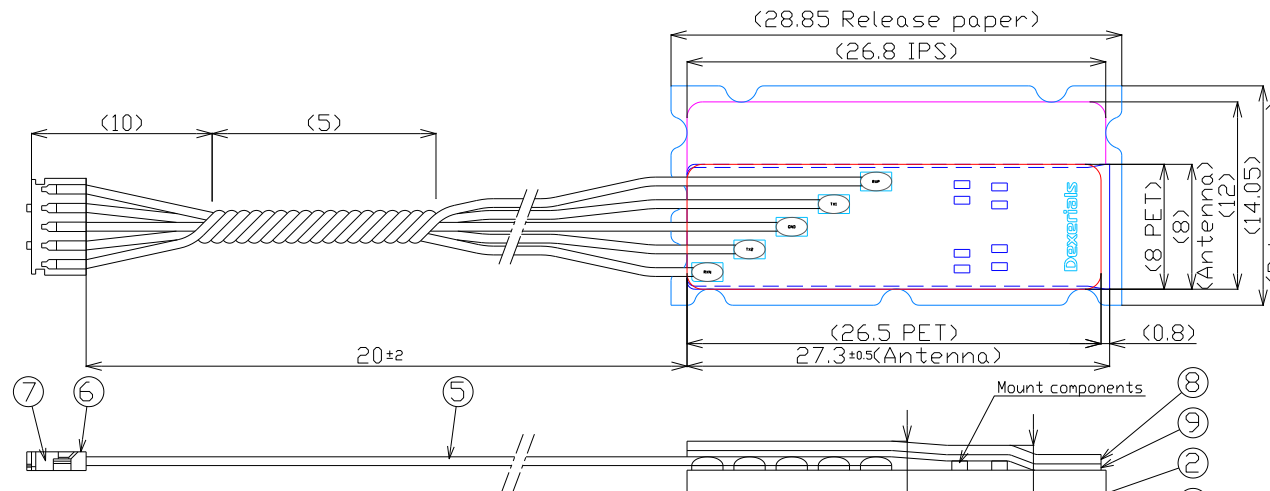
- 1) This drawing shows the view from terminal side.
- 2) Where not specified, dimensional tolerance shall be in accordance with General tolerance.
- 3) Exposed areas of the terminal shall be treated with Ni/Au Plating.  
Ni: 1~6μm / Au: 0.03μm~
- 4) Material, thickness, etc. shall be in accordance with the component list.
- 5) The tolerance of total thickness excluding copper should be ±50μm.
- 6) Position shift of PET and an antenna may be less than ±0.5mm.
- 7) This part should not contain any substances which are specified in Management Standards for the Environment-Related Substances.

環境管理物質管理標準のレベル1物質は含有しない事

General tolerance

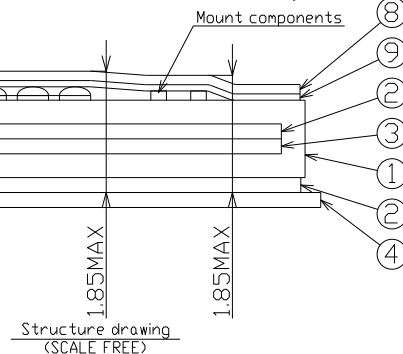
L ≤ 16	±0.2
16 < L ≤ 63	±0.3
63 < L ≤ 250	±0.4
250 < L	±0.6

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Component list

①	material	thick	remark
①	Antenna	-	-
②	Adhesive	50μm	-
③	IPS	90μm	Aluminium
④	Release paper (116μm)		Paper
⑤	Wire (560μm)		UL3302 #30AWG Color : Black
⑥	Housing	-	ACHR-05V-K(HF) Color : Black
⑦	Terminal	-	SACH-003G-P0.2
⑧	PET	125μm	PET 75μm
⑨	Adhesive	-	-



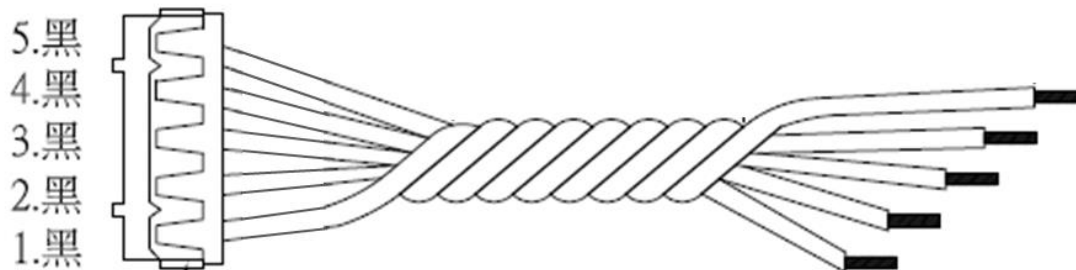
DATE	REVISIONS	SIGN	ANGLE	Unit	NFC-Antenna	
PLANNED	DRAWN	CHECKED	APPROVED	D'TY	PART NAME	2
2016.05.13	2016.05.13	2016.05.13	2016.05.13			
M.SUZUKI	M.SUZUKI	A.FUKUDA	A.FUKUDA	SCALE	5:1	PART No. ANT-M047A

# ANT-M047A Specs

## 1. Antenna materials , Composition list.

	Parts	Thickness	Material
1	Antenna		FPC + Ferrite
2	Adhesive		
3	IPS	90um	Aluminum
4	Release Paper	116um	Paper
5	Wire	560um	UL3302 #30AWG
6	Housing		ACHR-05V-K(HF)
7	Terminal		SACH-003G-P0.2

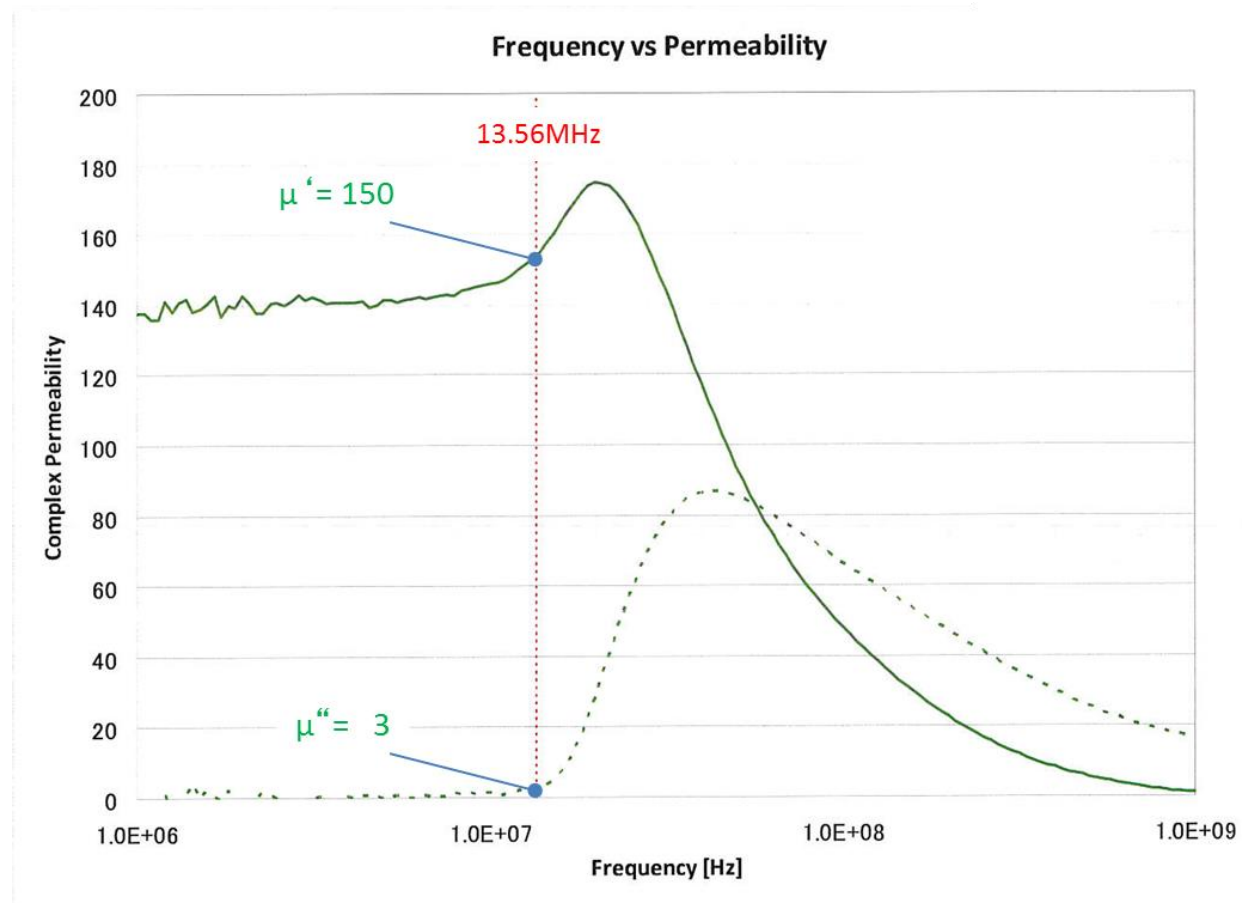
## 2. Antenna Connector Type



## 3. Ferrite materials, frequency characteristics.

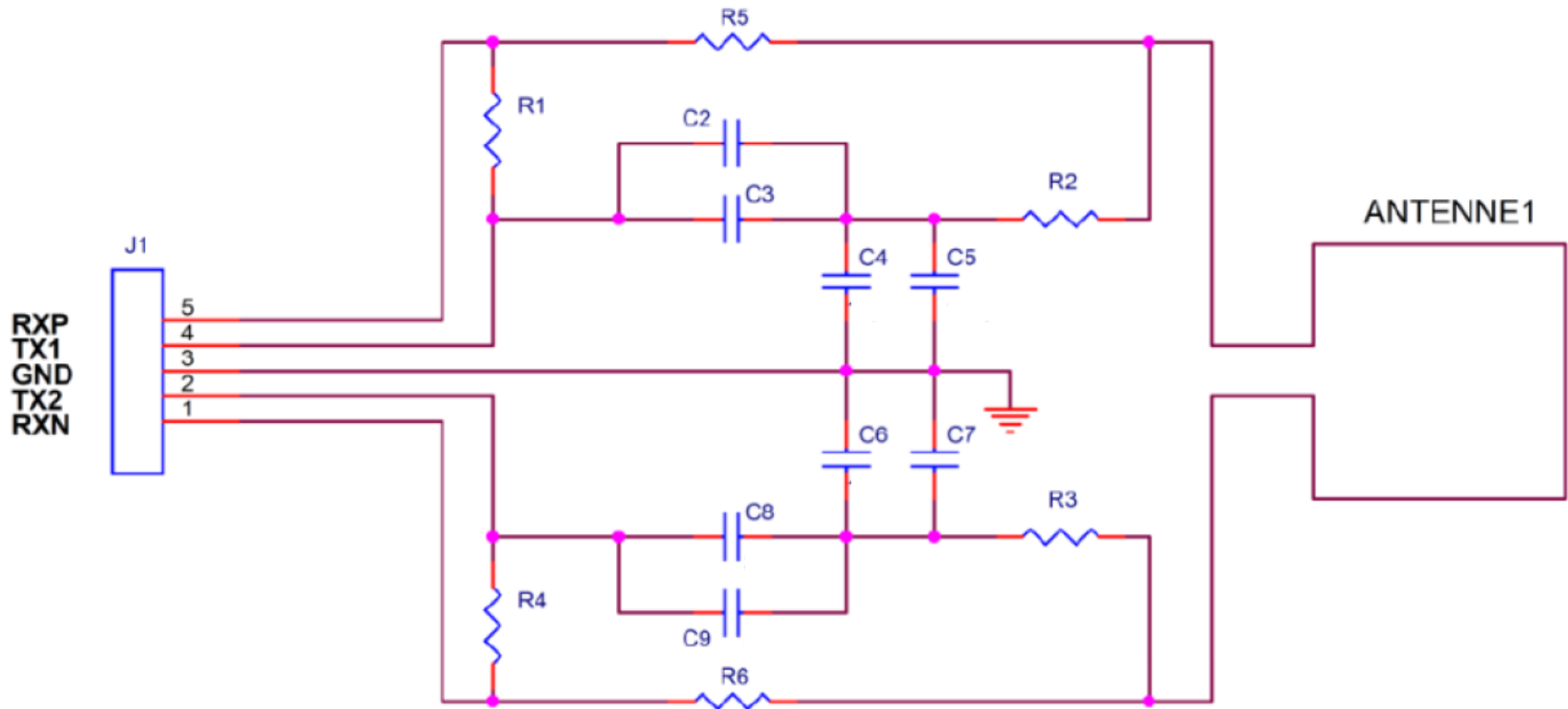
> Ferrite Materials: Ni-Zn-Cu Ferrite

> Frequency Characteristics



# ANT-M047A Specs

## 4. Matching Circuit Schematics



# ANT-M047A Specs

## 5. Matching Circuit Component Values

	SPEC	Part number	Manufacturer
C2	47pF ±2%	GRM1555C1H470GA01	Murata
C3	-	-	-
C4	-	-	-
C5	150pF ±2%	GRM1555C1H151GA01	Murata
C6	-	-	-
C7	150pF ±2%	GRM1555C1H151GA01	Murata
C8	-	-	-
C9	47pF ±2%	GRM1555C1H470GA01	Murata
R1	-	-	-
R2	0Ω	RK73Z1ETTP	KOA
R3	0Ω	RK73Z1ETTP	KOA
R4	-	-	-
R5	2.2kΩ	MCR01MZPJ222	ROHM
R6	2.2kΩ	MCR01MZPJ222	ROHM

# ANT-M047A Specs

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## 6. Operating Temperature, Storage temperature requirement.

-10~+55 deg C (Humidity Conditions: Must be lower than or equal to 75%)

\* Still under consideration

## 7. Antenna Radiate Direction

\*Magnetic Field Strength Distribution: in case of Antenna Current @300mAP-P

