



## Technical Report

2022-Mar-7<sup>th</sup> GiSeok Kim

To : To Whom it may concern

CC : SungYoul Kang (Danny) (SHS US PLM IMG TDS MPE), Rumwell, Reginald (SHS US PLM IMG)

From : GiSeok Kim (SHS US PLM IMG TDS MPE)

Date : Mar 7<sup>th</sup>, 2022

Title : 14L5SP, 10EV3, Z6Ms transducers compatibility testing for gigasept AF

### ■ Executive Summary:

This report is to qualify whether 14L5SP, 10EV3 and Z6Ms transducers are compatible with gigasept AF. Testing was performed with extended exposure testing protocol and showed that this disinfectant did not harm the three transducers. Based on the test results below, three transducers are compatible with gigasept AF. These results will be updated in the Transducer Disinfectant Compatibility Matrix (P/N 11335653).

### ■ Scope :

- Test protocol : Transducer Disinfectant Qualification Protocol (P/N 5931980)
  - Chemical compatibility test procedure
  - Pass/Fail Criteria: Transducer Disinfectant Qualification Protocol (P/N 5931980)
- Disinfectant

Gigasept AF is a concentrate and is diluted with cold water to produce 4% concentration.

Name	CAS No.	Active ingredient	Concentration of undiluted solution	Diluted concentration (4%)
Gigasept AF	7173-51-5	Didecyldimethylammoniumchloride	15%	0.6%
	4169-04-4	Phenoxypropanols	10%	0.4%
	-	Amino alkyl glycine	6.9%	0.3%

### ● Tested transducers

Transducer	P/N	S/N	Test results
14L5SP	10041226	21080039	Pass
10EV3	11502928	21260151	Pass
Z6Ms	10436113	20220534	Pass

### ● Transducer family

Transducers can be grouped by construction and same outer materials as described in the Transducer Family Classification for Reprocessing (P/N 11508925). So gigasept AF has already been tested on three transducers and the results will be applied to other transducers without additional testing.

Transducers	P/N	Family
Z6Ms (representative)	10135943	T6
14L5SP MP2 (representative) VF13-5 SP DL 360	10041226 08266907	S1
10EV3 10MC3 (representative) EC9-4	11502928 11284842 & 11268679 8648029/ 10789383 & 10136144	E1



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## ■ Summary of test result

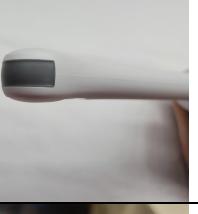
XDCR name	XDCR S/N	Cleaner/Disinfectant	Section	Before soaking	After soaking	Diff(After-Before)	Result	
14L5SP	21080039	gigasept AF	Hipot test	0.180 mA	0.182 mA	-	Pass	
			Leakage test	10.398 uA	7.540 uA	-	Pass	
			Probe element test	Sens.std at 8.5MHz	0.56 dB	0.49 dB	0.07 dB	Pass
				Sens.std at 10.5MHz	0.71 dB	0.52 dB	0.19 dB	Pass
			Probe element test	Sens.std at 6.0MHz	0.53 dB	0.48 dB	0.05 dB	Pass
				TOF	6.6 ns	5.28 ns	1.32 ns	Pass
			Dead element	0	0	0	Pass	
Cosmetic Inspection				No defect	No defect	-	Pass	

XDCR name	XDCR S/N	Cleaner/Disinfectant	Section	Before soaking	After soaking	Diff(After-Before)	Result	
10EV3	21260151	gigasept AF	Hipot test	0.242 mA	0.250 mA	-	Pass	
			Leakage test	12.090 uA	11.890 uA	-	Pass	
			Probe element test	Sens.std at 6.0MHz	0.51 dB	0.5 dB	0.01 dB	Pass
				Sens.std at 8.0MHz	0.88 dB	0.76 dB	0.12 dB	Pass
			Probe element test	Sens.std at 3.5MHz	0.7 dB	0.66 dB	0.04 dB	Pass
				TOF	3.46 ns	3.97 ns	0.51 ns	Pass
			Dead element	0	0	0	Pass	
Cosmetic Inspection				No defect	No defect	-	Pass	

XDCR name	XDCR S/N	Cleaner/Disinfectant	Section	Before soaking	After soaking	Diff(After-Before)	Result	
Z6Ms	20220534	gigasept AF	Hipot test	3.98 mA	5.34 mA	-	Pass	
			Leakage test	248.989 uA	314.08 uA	-	Pass	
			Probe element test	Sensitivity Stdevat 3MHz	0.16 V/V	0.15 V/V	-0.56 dB	Pass
				Sensitivity Stdevat 5MHz	0.13 V/V	0.12 V/V	-0.69 dB	Pass
			Probe element test	Sensitivity Stdevat 6MHz	0.1 V/V	0.1 V/V	0 dB	Pass
				TOF	5.6 ns	4.7 ns	0.9 ns	Pass
			Dead element	14	15	1	Pass	
Cosmetic Inspection				No defect	No defect	-	Pass	

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 ■ Cosmetic inspection

XDCR	S/N	Test	Lens	Nosepiece & Housing	Strain Relief & Cable
14L5SP	21080039	Before			
		After			

XDCR	S/N	Test	Lens	Nosepiece & Housing	Strain Relief & Cable
10EV3	21260151	Before			
		After			

XDCR	S/N	Test	Lens	Nosepiece & Housing	Strain Relief & Cable
Z6Ms	20220534	Before			
		After			

## ■ Conclusion:

Based on the test results, 14L5SP, VF13-5, Z6Ms, 10EV3, 10MC3 and EC9-4 transducers are compatible with gigasept AF disinfectant. This Results will be updated in Transducer Disinfectant Compatibility Matrix (P/N 11335653).

## ■ Related Document

Transducer Cleaner Disinfectant Qualification Protocol, P/N 5931980

The Transducer Disinfectant Compatibility Matrix, P/N 11335653

Cleaner & Disinfectant Family Classification, P/N 11508294

Transducer Family Classification for Reprocessing, P/N 11508925

## ■ Attachment

- 1) Technical data sheet (gigasept AF\_MSDS)



ReleasedProduct- MSDS-gigasept\_af  
910056-WORLD-er .pdf

- 2) Test results

XDCR name	XDCR S/N	Test	Probe Element Test	Hipot & Leakage Test
14L5SP	21080039	Pre-test	  x2ng5.impulse.eva x2ng5.impulse.ana l.development.postlysis.development.¶	 210614.Hipot.1004 1226.21080039.disi
		Post-test	 x2ng.plm.impulse. analysis.developme	 220207.PLH_Hipot .10041226.2108003
10EV3	21260151	Pre-test	  x2ng.plm.impulse. x2ng.plm.impulse. eval.development.¶analysis.developme	 211021.PLH_Hipot .11502928.2126015
		Post-test	 x2ng.plm.impulse. analysis.developme	 220207.PLH_Hipot .11502928.2126015
Z6Ms	20220534	Pre-test	 After_Z6Ms PE test_after first step.	 Z6Ms Hipot & Leakage test_after
		Post-test	 Z6Ms_SN 20220534_PE testin	 Z6Ms_SN 20220534_Hipot&L