초 음 파 탐 상 검 사 보 고 서
ULTRASONIC TESTING REPORT

주식회사 금 가

Kumga Co., Ltd.

본 사 : 서울특별시 서대문구 연희로 18, 금가빌딩 3층
전 화 : TEL : (02) 796 - 3838 FAX : (02) 796 - 3858
서 울 : 서울 구로구 구로중앙로 198, 구로기계공구상가 35동304호
전 화 : TEL : (02) 2634 - 7518 FAX : (02) 2634 - 7519

보고서 번호 Report No.	KG - SAS - U002
보 고 일 자 Report Date	2018년 08월 01일
페이지 번호 Report No.	1 of 4

발주처 Client ㈜세안안전진단	공사명 / 번호 Project Name / No. 광명고가도로 정밀안전진단용역 중 비파괴시험
품명 Item Name 광명고가도로	규정 / 절차서 Code / Procedure / Rev. No. KS B 0896 / 16E081-C01 / 0
인식번호 / 부품번호 Heat No. / M/O No. 구로방향	도면번호 Drawing No. / Rev. No. N/A
적용규격 Applied Spec. KS B 0896 - 2류이상	계약번호 Job / Contract No. N/A

재질 / Base Material Type	두께 / 크기 Thickness / Size	표면상태 / Surace condition
SWS50	12.0 ~ 30.0 ■ mm □ inch	As welded

장비 Equipment	제조사 / Maker	모델 / Model	일련번호 / Serial No.	Computerized Program ID (Rev.)
	SONATEST	SITESCAN 130	1301342	

탐촉자 Search Unit	제조사 Maker	모델 Model	일련번호 Serial. No	각도 Angle	주파수 Frequency	크기 Size
	TKS	4C8x9A70	ACMC879	70 °	4 MHz	Φ 8*9 mm
	TKS	4C10N	NEEA338	0 °	4 MHz	Φ 10 mm

검사방법 및 형태 Method & Mode	□ 수직법 (Straight Beam) ■ 사각법 (Angle Beam)	■ 접촉법 (Contact) □ 수침법 (Immerse)	
접촉매질 Couplant	□ 기계유 (Machine Oil) ■ CMC □ 글리세린 (Glycerin)	탐촉자 케이블 Search Unit Cable	Type : LEMO 00, LEMO 1 Length : 2M
교정시험편 Calibration Block	■ STB A1, A2 □ ASME Basic Calibration	일련번호 Serial No. :	A1 No.009115 A2 No.9205
검출레벨 Detecter Level	II ~III Level		
기준감도 Reference Level	□ B1 ..... % of Full Screen Height at ..... dB ■ Response from STB A2 ø4X4 (NOTCH, SDH, **FBH**) at 69.0 dB		
탐상감도 Scanning Sensivity Level	71.0 dB Above the Primary Reference Level	시험일자/Examination Date	2018. 07. 23~2018. 07. 24

Sketch on line, if necessary. ■ Attached. 필요 시 실선안에 스케치 하거나 또는 첨부할 것.

시험자 Examined By :	김 용 철	김용철 기사	EXAMINATION AMOUNTS 56
승인자 Approved By :	김 용 철	김용철 기사	AUTHORIZED(NUCLEAR) INSPECTOR 공인(원자력) 검사원

□ CUSTOMER 주문주
□ CLIENT 발주처

초 음 파 탐 상 검 사 보 고 서
ULTRASONIC TESTING REPORT

주식회사 금 가

Kumga Co., Ltd.

본 사 : 서울특별시 서대문구 연희로 18, 금가빌딩 3층
전 화 : TEL : (02) 796 - 3838 FAX : (02) 796 - 3858
서 울 : 서울 구로구 구로중앙로 198 구로기계공구상가 35동304호
전 화 : TEL : (02) 2634 - 7518 FAX : (02) 2634 - 7519

보고서 번호 Report No.	KG - SAS - U002
보 고 일 자 Report Date	2018년 08월 01일
페이지 번호 Report No.	2 of 4

검 사 결 과 및 판 정
Results & Interpretation

확인번호 Identification No	모재두께 Material Thickness (㎜)	각도 Angle (°)	위치 Location From "X"	위치 Location From "Y"	빔거리 Sound Path (W) (㎜)	결함깊이 Depth From Surface (D) (㎜)	최대 DAC/dB/영역 Max. DAC/dB/Area	결함길이 Defect Length (L) (㎜)	등급 Class	결과 Results 합격 Accept	결과 Results 불합격 Reject	비고 Reamrks
S1 - G1 - W2	14+16	70	0	2640	결함지시 없음				1	V		
S1 - G1 - W4	20+30	70	0	2640	결함지시 없음				1	V		
S1 - G2 - W3	14+20	70	0	2640	결함지시 없음				1	V		
S1 - G2 - W4	20+30	70	0	2640	결함지시 없음				1	V		
S2 - G1 - W3	14+16	70	0	2640	결함지시 없음				1	V		
S2 - G1 - W4	16+12	70	0	2640	결함지시 없음				1	V		
S2 - G2 - W1	20+30	70	0	2640	결함지시 없음				1	V		
S2 - G2 - W3	14+16	70	0	2640	결함지시 없음				1	V		
S3 - G1 - W2	14+16	70	0	2640	결함지시 없음				1	V		
S3 - G1 - W4	20+28	70	0	2640	결함지시 없음				1	V		
S3 - G2 - W1	12+16	70	0	2640	결함지시 없음				1	V		
S3 - G2 - W3	14+20	70	0	2640	결함지시 없음				1	V		
S4 - G1 - W2	20+28	70	0	2640	결함지시 없음				1	V		
S4 - G1 - W4	16+22	70	0	2640	결함지시 없음				1	V		
S4 - G2 - W1	20+28	70	0	2640	결함지시 없음				1	V		
S4 - G2 - W3	14+16	70	0	2640	결함지시 없음				1	V		
S5 - G1 - W2	14+16	70	0	2640	결함지시 없음				1	V		
S5 - G1 - W4	20+28	70	0	2640	결함지시 없음				1	V		
S5 - G2 - W1	16+22	70	0	2640	결함지시 없음				1	V		
S5 - G2 - W3	14+20	70	0	2640	결함지시 없음				1	V		

초 음 파 탐 상 검 사 보 고 서
ULTRASONIC TESTING REPORT

주식회사 금 가

Kumga Co., Ltd.

본 사 : 서울특별시 서대문구 연희로 18, 금가빌딩 3층
전 화 : TEL : (02) 796 - 3838 FAX : (02) 796 - 3858
서 울 : 서울 구로구 구로중앙로 198 구로기계공구상가 35동304호
전 화 : TEL : (02) 2634 - 7518 FAX : (02) 2634 - 7519

보고서 번호 Report No.	KG - SAS - U002
보 고 일 자 Report Date	2018년 08월 01일
페이지 번호 Report No.	3 of 4

검 사 결 과 및 판 정
Results & Interpretation

확인번호 Identification No	모재두께 Material Thickness (㎜)	각도 Angle (°)	위치 Location From "X"	위치 Location From "Y"	빔거리 Sound Path (W) (㎜)	결함깊이 Depth From Surface (D) (㎜)	최대 DAC/dB/영역 Max. DAC/dB/Area	결함길이 Defect Length (L) (㎜)	등급 Class	결과 Results 합격 Accept	결과 Results 불합격 Reject	비고 Reamrks
S6 - G1 - W2	14+20	70	0	2640	결함지시 없음				1	V		
S6 - G1 - W4	12+16	70	0	2640	결함지시 없음				1	V		
S6 - G2 - W1	20+28	70	0	2640	결함지시 없음				1	V		
S6 - G2 - W3	14+16	70	0	2640	결함지시 없음				1	V		
S7 - G1 - W2	14+16	70	0	2640	결함지시 없음				1	V		
S7 - G1 - W4	20+28	70	0	2640	결함지시 없음				1	V		
S7 - G2 - W1	12+16	70	0	2640	결함지시 없음				1	V		
S7 - G2 - W3	14+20	70	0	2640	결함지시 없음				1	V		
S8 - G1 - W2	14+20	70	0	2640	결함지시 없음				1	V		
S8 - G1 - W4	16+20	70	0	2640	결함지시 없음				1	V		
S8 - G2 - W1	20+28	70	0	2640	결함지시 없음				1	V		
S8 - G2 - W3	14+16	70	0	2640	결함지시 없음				1	V		
S8 - G2 - W3	14+16	70	0	2640	결함지시 없음				1	V		
S9 - G1 - W4	20+28	70	0	2640	결함지시 없음				1	V		
S9 - G2 - W1	16+20	70	0	2640	결함지시 없음				1	V		
S9 - G2 - W3	14+20	70	0	2640	결함지시 없음				1	V		
S10 - G1 - W2	14+20	70	0	2640	결함지시 없음				1	V		
S10 - G1 - W4	12+16	70	0	2640	결함지시 없음				1	V		
S10 - G2 - W1	20+28	70	0	2640	결함지시 없음				1	V		
S10 - G2 - W3	14+16	70	0	2640	결함지시 없음				1	V		

초 음 파 탐 상 검 사 보 고 서
ULTRASONIC TESTING REPORT

주식회사 금 가

Kumga Co., Ltd.

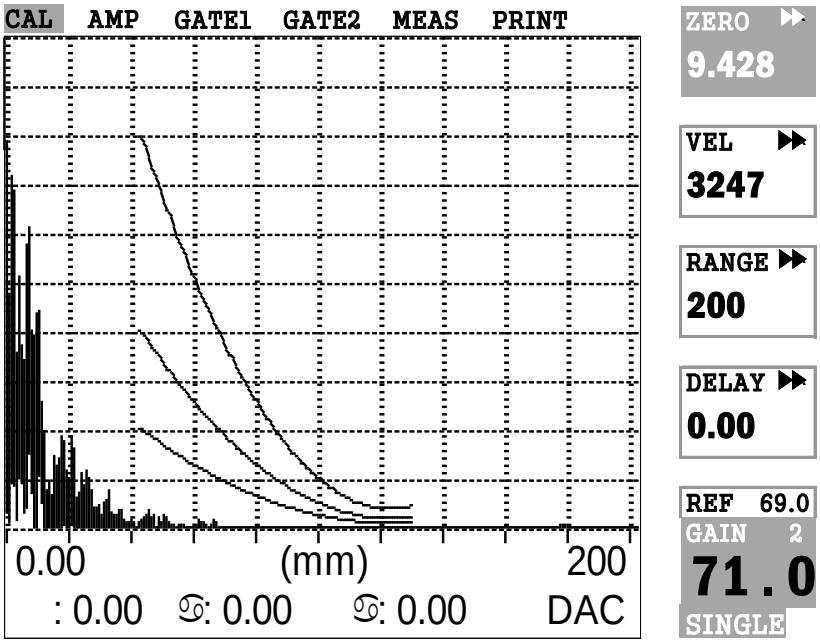
본 사 : 서울특별시 서대문구 연희로 18, 금가빌딩 3층
전 화 : TEL : (02) 796 - 3838 FAX : (02) 796 - 3858
서 울 : 서울 구로구 구로중앙로 198 구로기계공구상가 35동304호
전 화 : TEL : (02) 2634 - 7518 FAX : (02) 2634 - 7519

보고서 번호 Report No.	KG - SAS - U002
보 고 일 자 Report Date	2018년 08월 01일
페이지 번호 Report No.	4 of 4

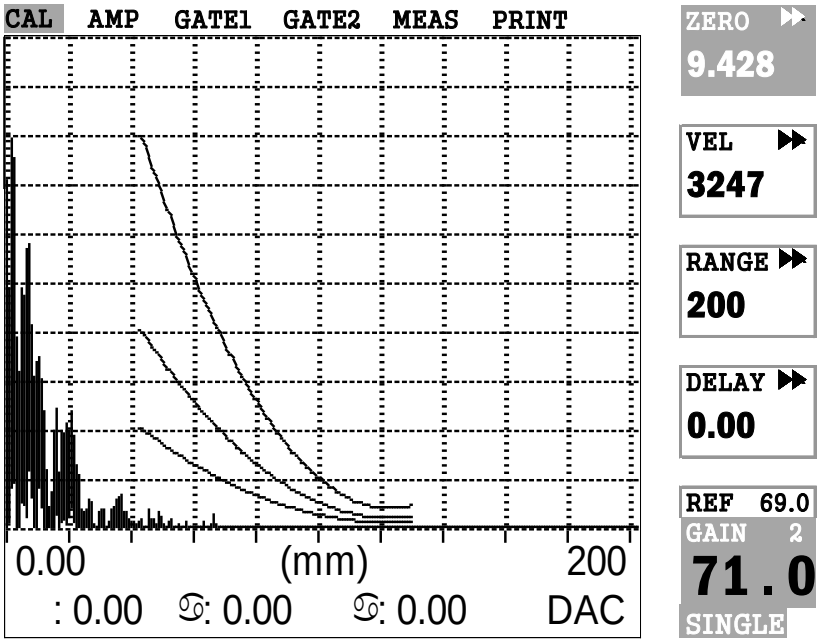
검 사 결 과 및 판 정
Results & Interpretation

확인번호 Identification No	모재두께 Material Thickness (㎜)	각도 Angle (°)	위치 Location From "X"	위치 Location From "Y"	빔거리 Sound Path (W) (㎜)	결함깊이 Depth From Surface (D) (㎜)	최대 DAC/dB/영역 Max. DAC/dB/Area	결함길이 Defect Length (L) (㎜)	등급 Class	결과 Results 합격 Accept	결과 Results 불합격 Reject	비고 Reamrks
S11 - G1 - W2	14+16	70	0	2640	결함지시 없음				1	V		
S11 - G1 - W4	20+28	70	0	2640	결함지시 없음				1	V		
S11 - G2 - W1	12+16	70	0	2640	결함지시 없음				1	V		
S11 - G2 - W3	14+20	70	0	2640	결함지시 없음				1	V		
S12 - G1 - W2	14+20	70	0	2640	결함지시 없음				1	V		
S12 - G1 - W4	18+24	70	0	2640	결함지시 없음				1	V		
S12 - G2 - W1	20+28	70	0	2640	결함지시 없음				1	V		
S12 - G2 - W3	14+18	70	0	2640	결함지시 없음				1	V		
S13 - G1 - W2	14+18	70	0	2640	결함지시 없음				1	V		
S13 - G1 - W4	20+28	70	0	2640	결함지시 없음				1	V		
S13 - G2 - W1	18+24	70	0	2640	결함지시 없음				1	V		
S13 - G2 - W3	14+20	70	0	2640	결함지시 없음				1	V		
S14 - G1 - W1	20+28	70	0	2640	결함지시 없음				1	V		
S14 - G1 - W2	14+20	70	0	2640	결함지시 없음				1	V		
S14 - G2 - W1	20+28	70	0	2640	결함지시 없음				1	V		
S14 - G2 - W2	14+20	70	0	2640	결함지시 없음				1	V		
이 하 여 백												

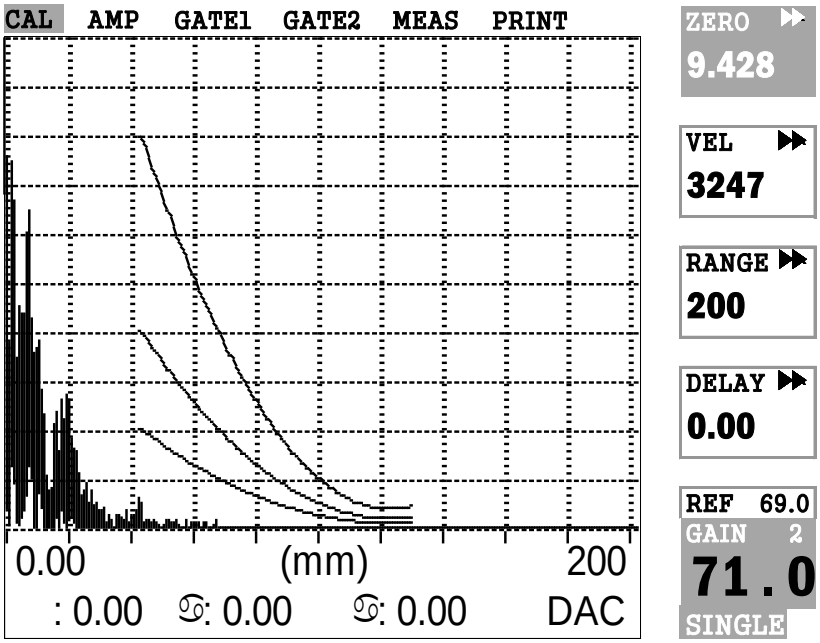
LOCATION : S1 – G1 – W2



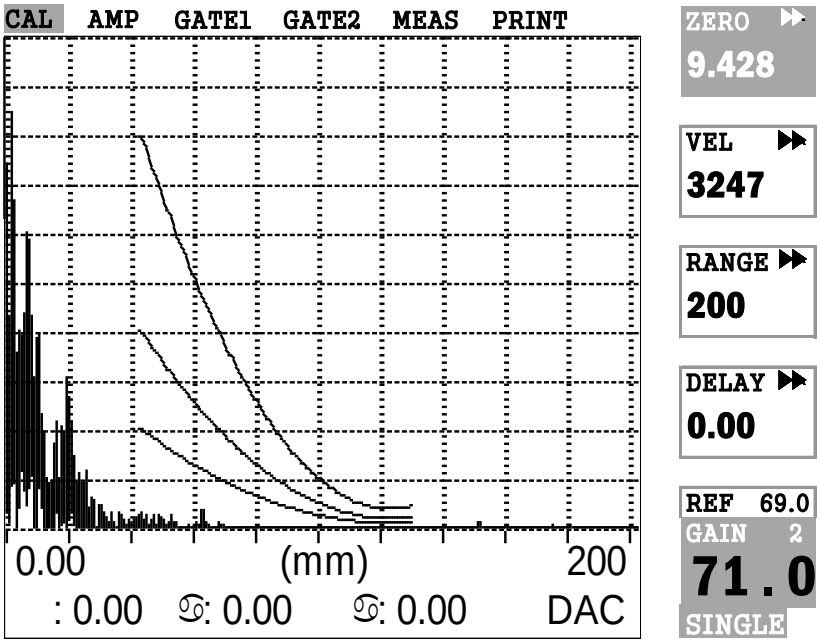
LOCATION : S1 – G1 – W4



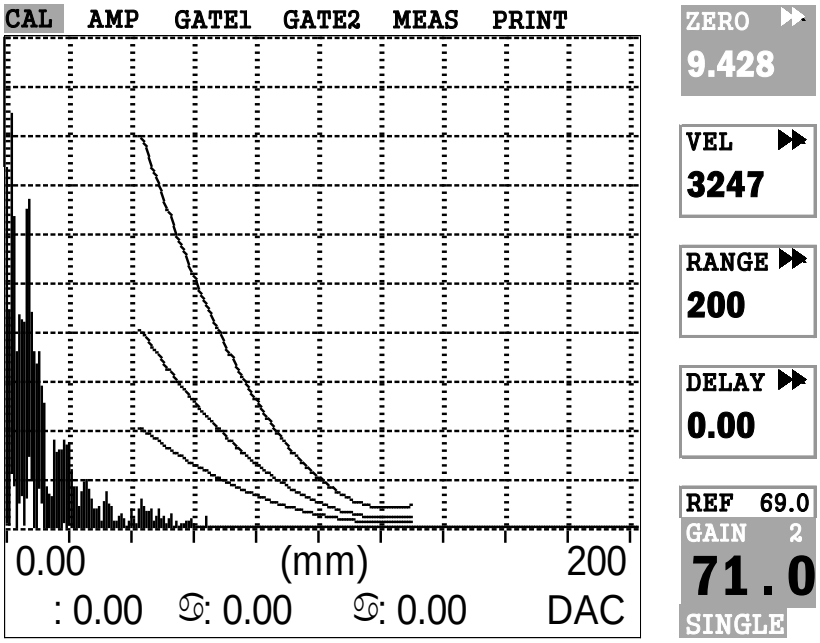
LOCATION : S1 – G2 – W3



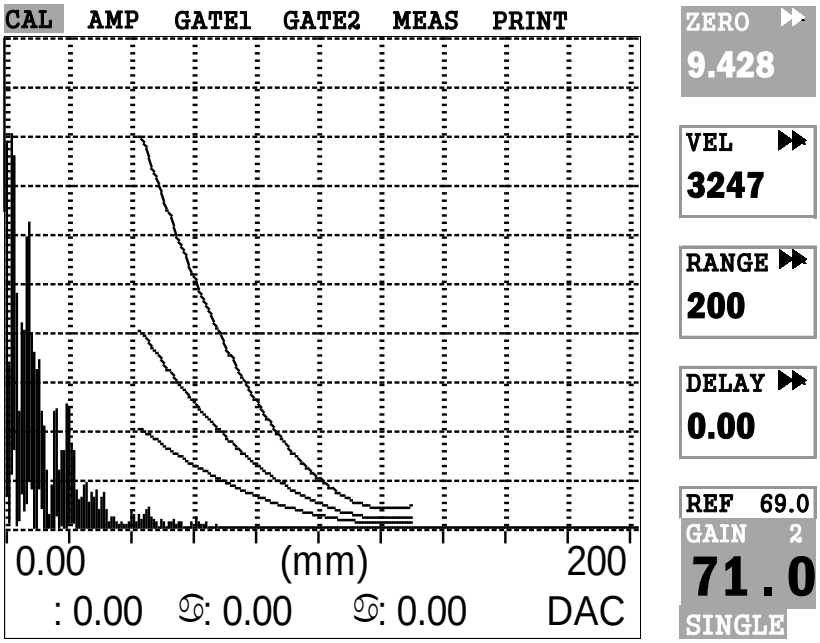
LOCATION : S1 – G2 – W4



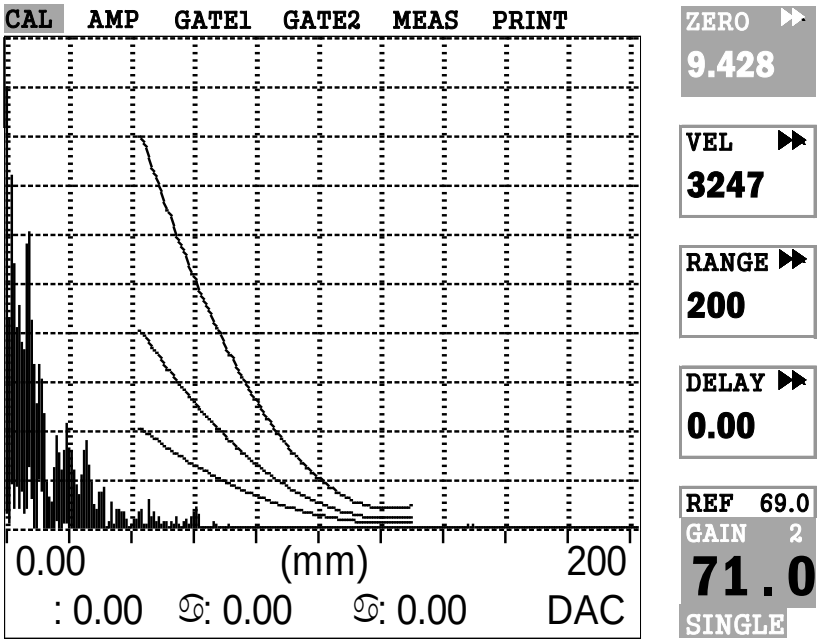
LOCATION : S2 – G1 – W3



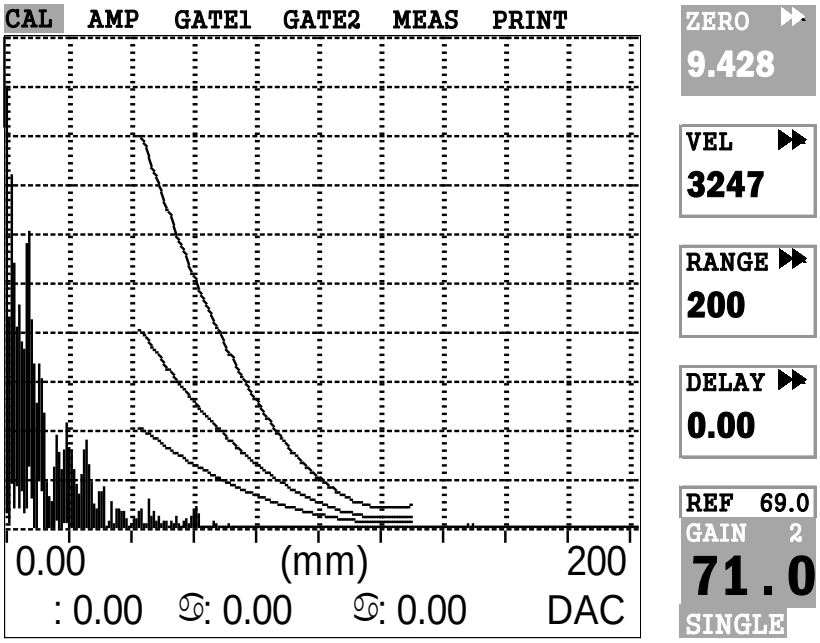
LOCATION : S2 – G1 – W4



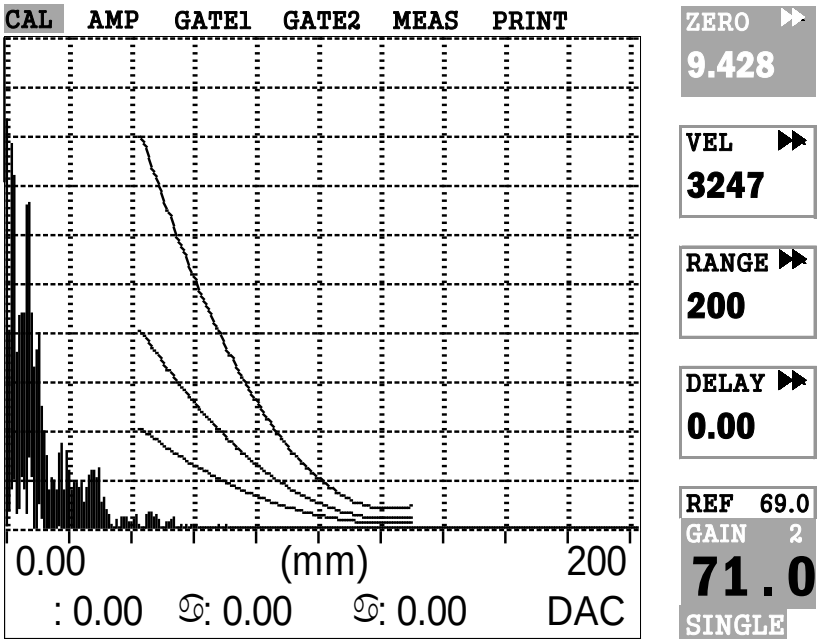
LOCATION : S2 – G2 – W1



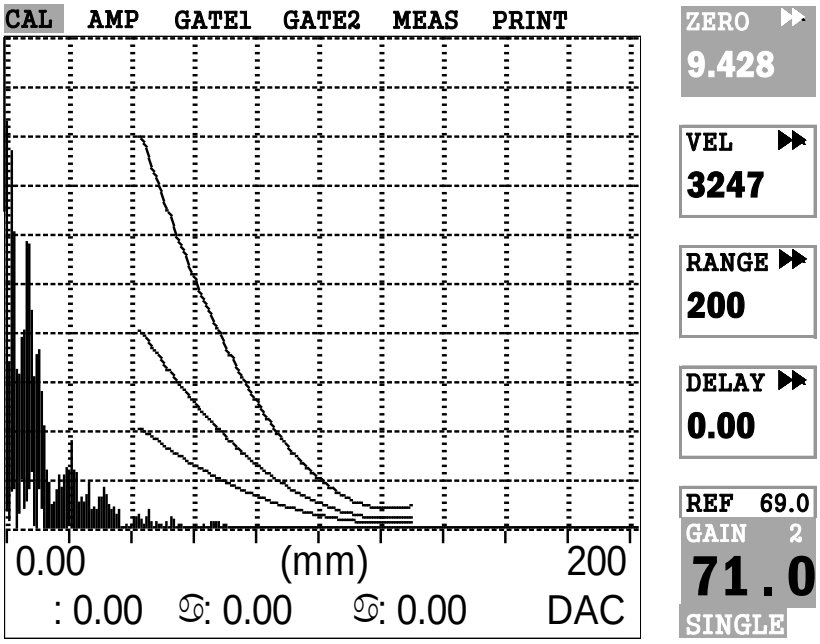
LOCATION : S2 – G2 – W3



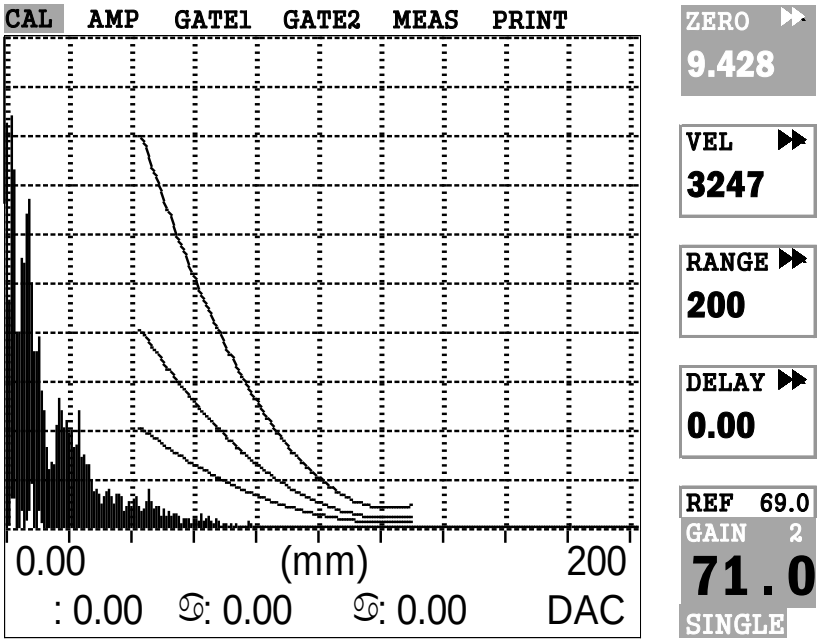
LOCATION : S3 – G1 – W2



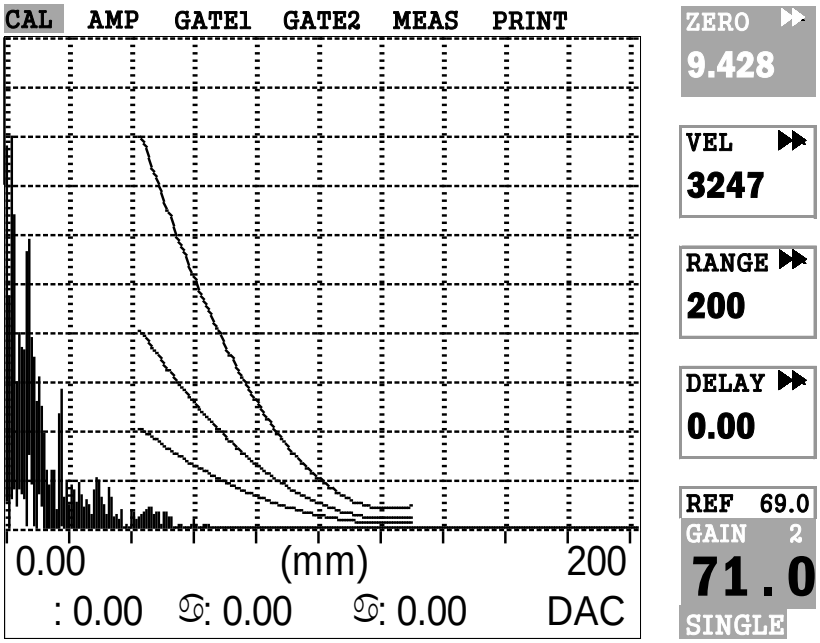
LOCATION : S3 – G1 – W4



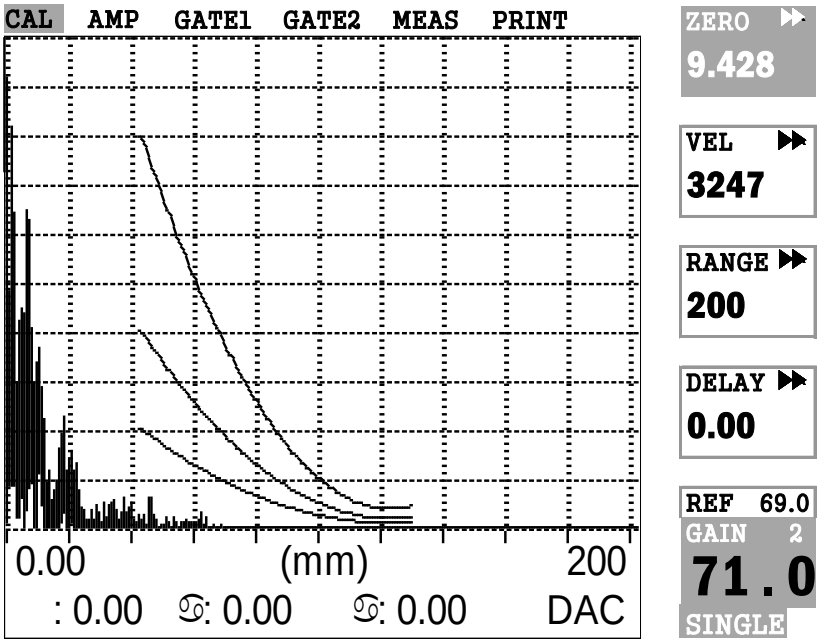
LOCATION : S3 – G2 – W1



LOCATION : S3 – G2 – W3

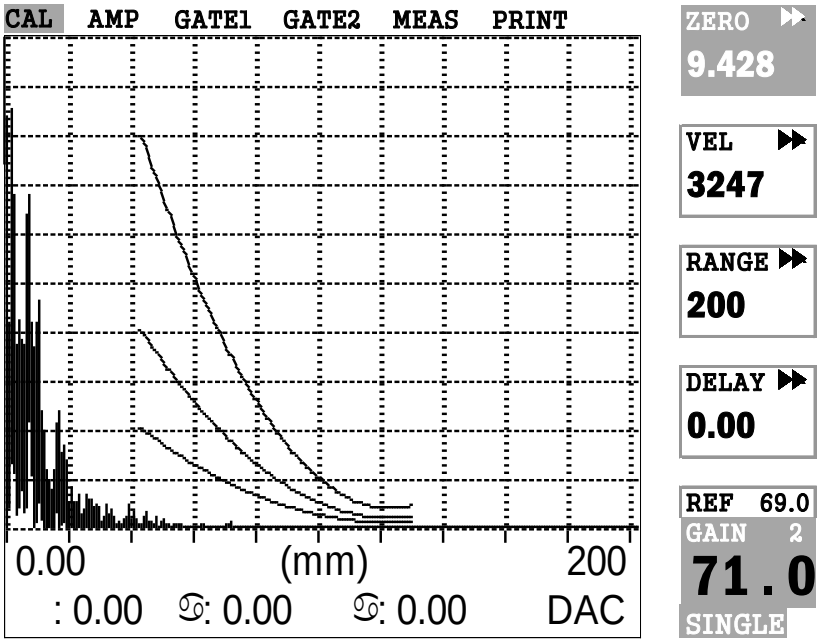


LOCATION : S4 – G1 – W2



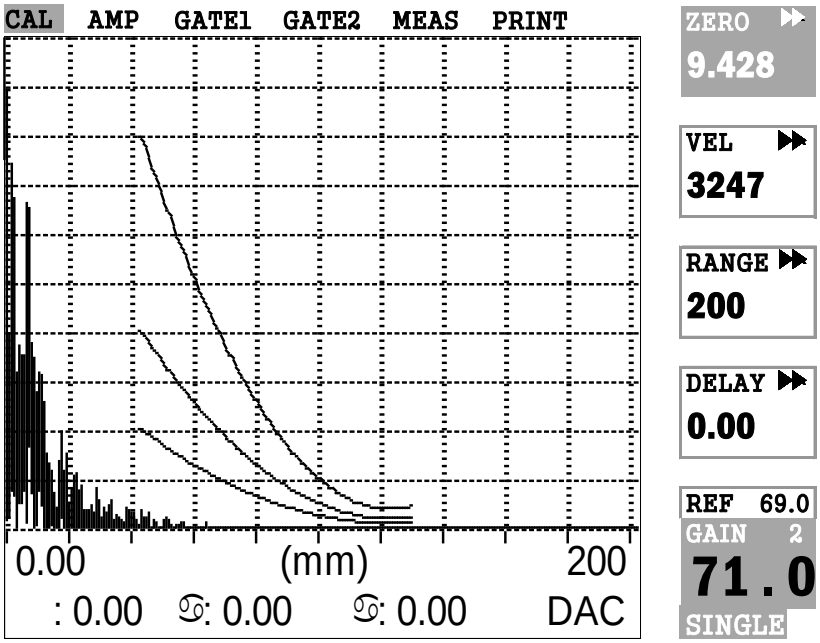
ZERO ▶▶
9.428
VEL ▶▶
3247
RANGE ▶▶
200
DELAY ▶▶
0.00
REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S4 – G1 – W4



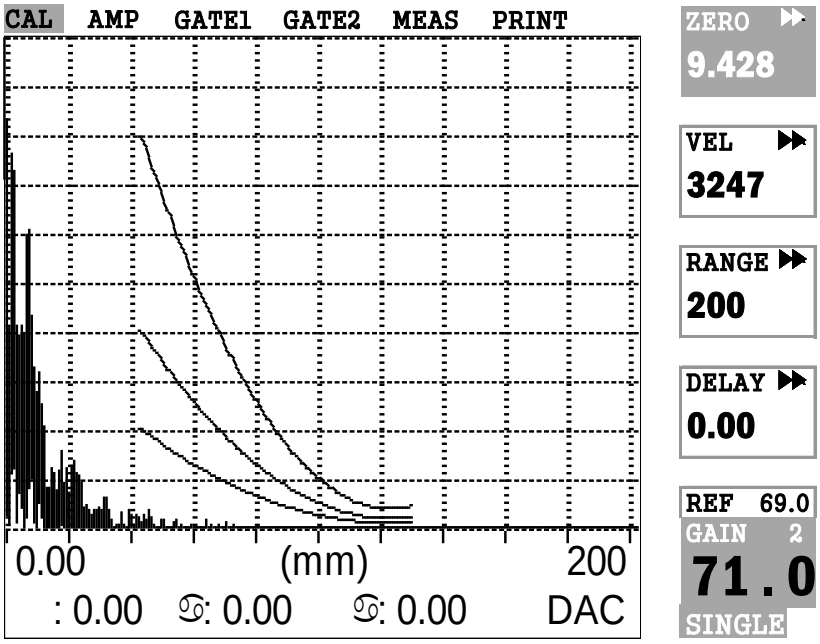
ZERO ▶▶
9.428
VEL ▶▶
3247
RANGE ▶▶
200
DELAY ▶▶
0.00
REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S4 – G2 – W1

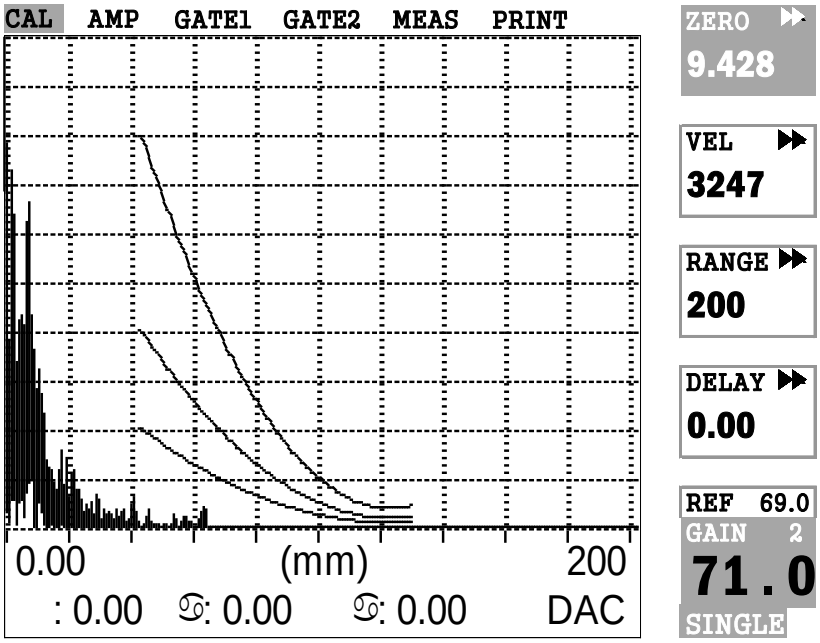


ZERO ▶▶
9.428
VEL ▶▶
3247
RANGE ▶▶
200
DELAY ▶▶
0.00
REF 69.0
GAIN 2
71.0
SINGLE

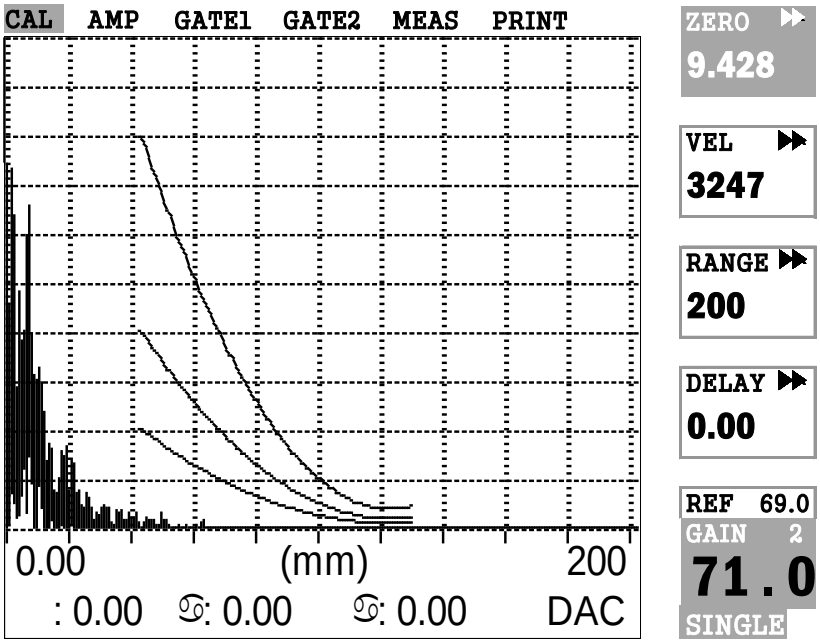
LOCATION : S4 – G2 – W3



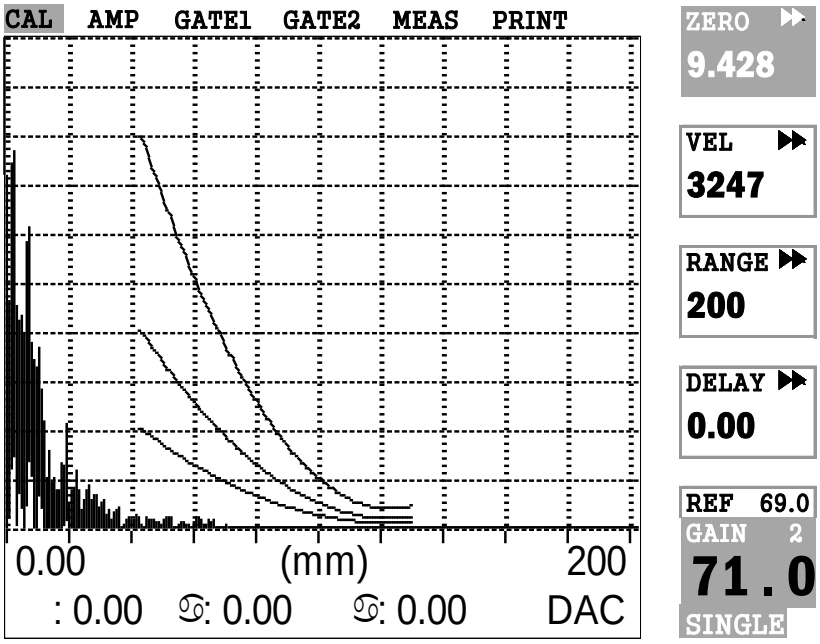
LOCATION : S5 – G1 – W2



LOCATION : S5 – G1 – W4



LOCATION : S5 – G2 – W1



ZERO
9.428

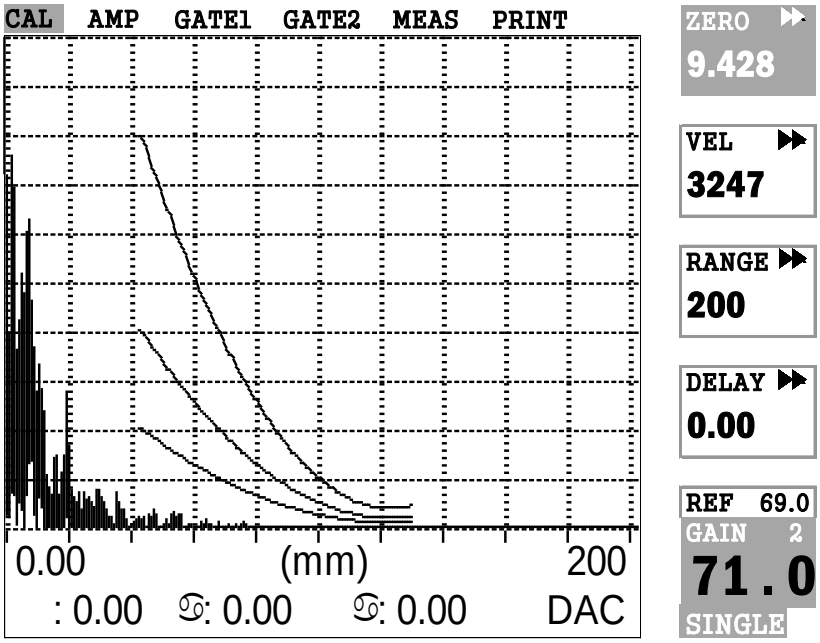
VEL
3247

RANGE
200

DELAY
0.00

REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S5 – G2 – W3



ZERO
9.428

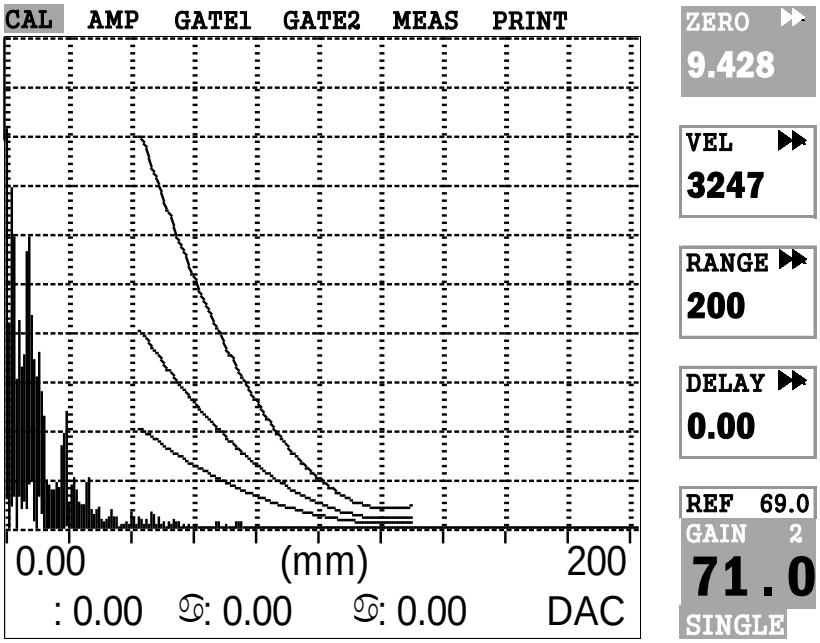
VEL
3247

RANGE
200

DELAY
0.00

REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S6 – G1 – W2



ZERO
9.428

VEL
3247

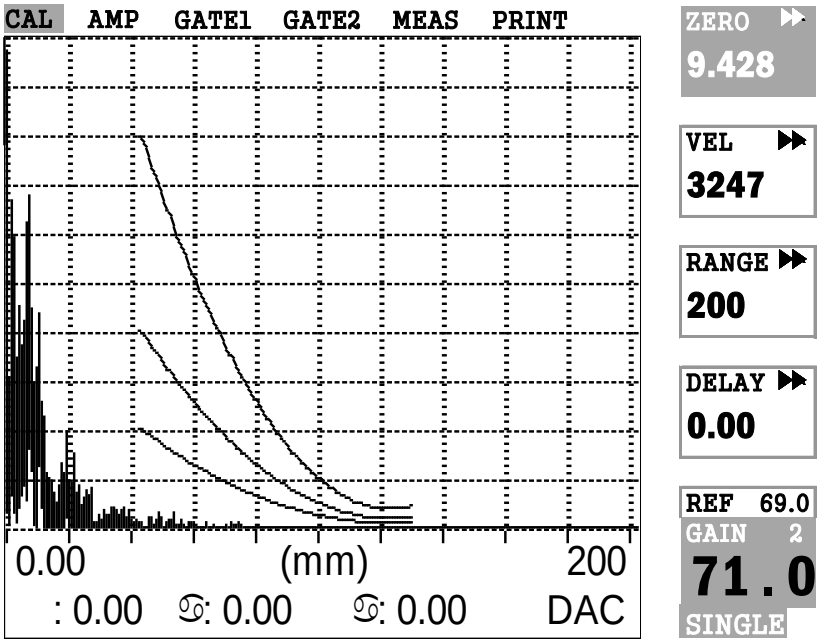
RANGE
200

DELAY
0.00

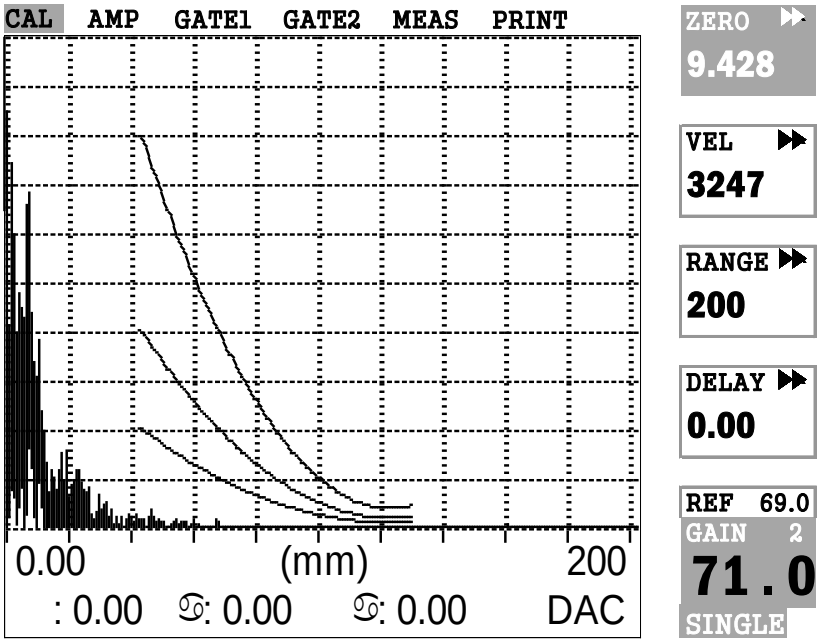
REF 69.0
GAIN 2
71.0
SINGLE

(주)금가

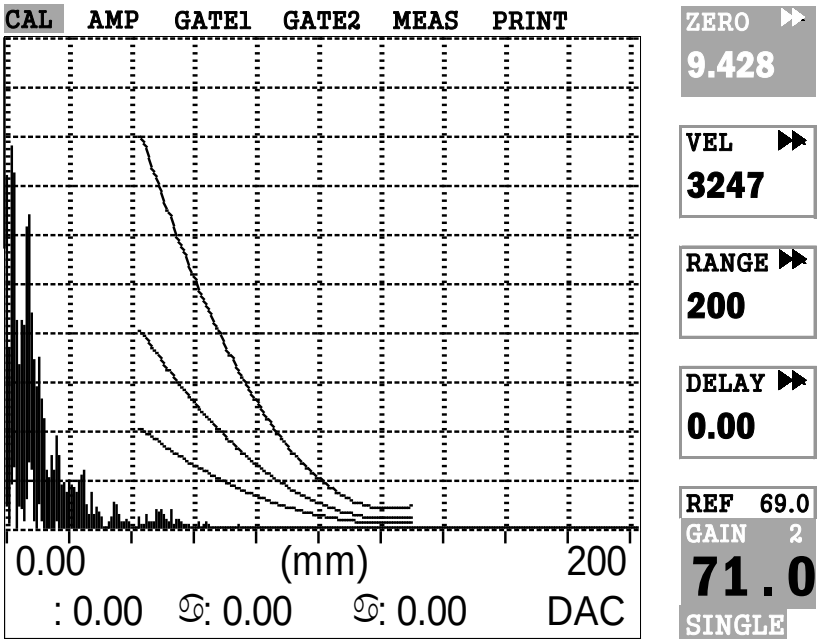
LOCATION : S6 – G1 – W4



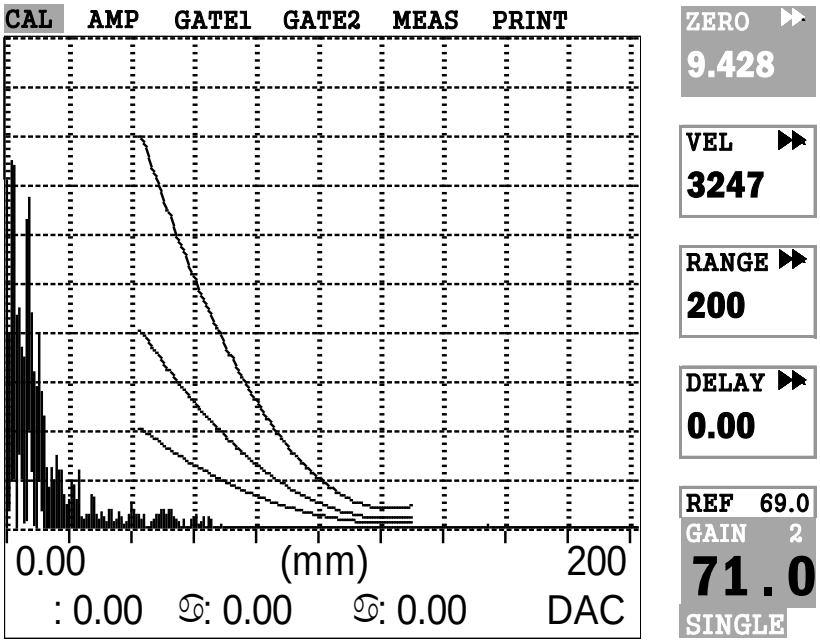
LOCATION : S6 – G2 – W1



LOCATION : S6 – G2 – W3



LOCATION : S7 – G1 – W2



ZERO ▶▶
9.428

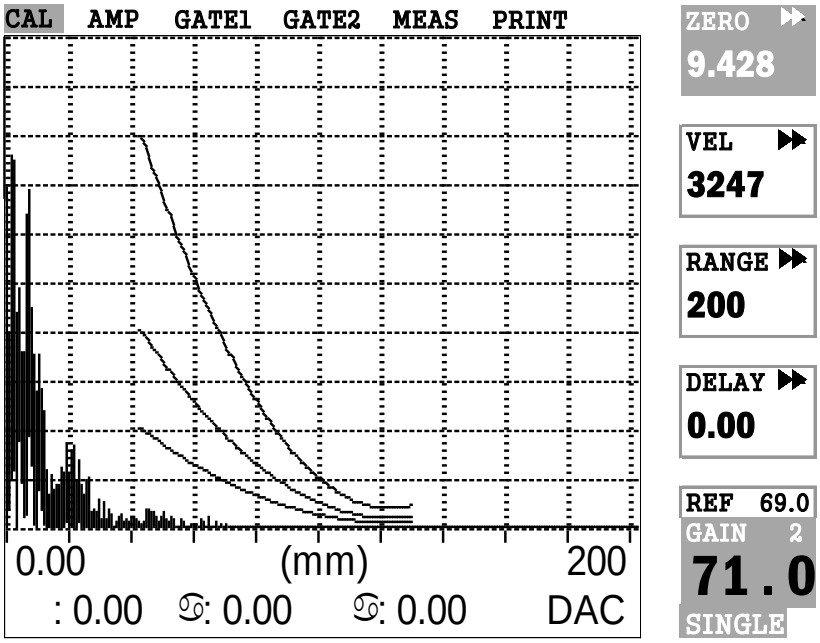
VEL ▶▶
3247

RANGE ▶▶
200

DELAY ▶▶
0.00

REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S7 – G1 – W4



ZERO ▶▶
9.428

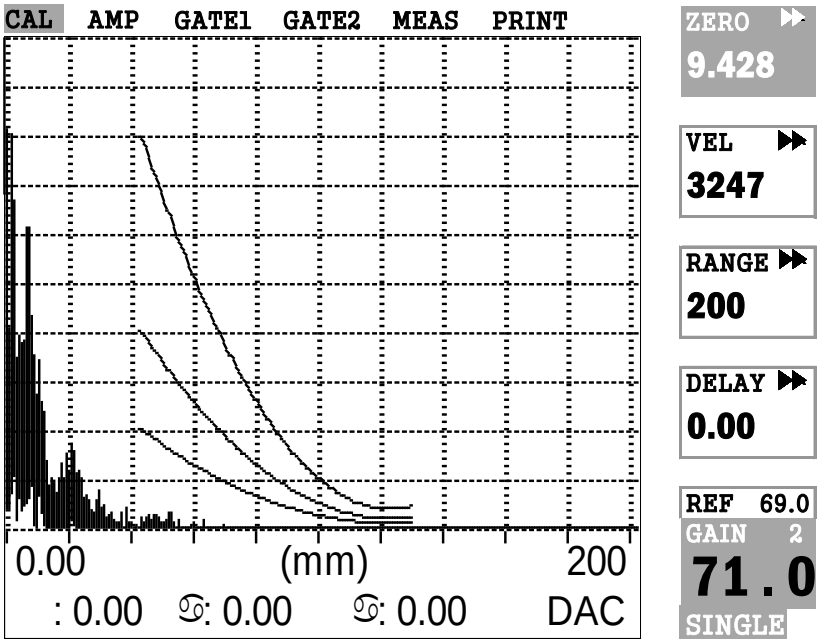
VEL ▶▶
3247

RANGE ▶▶
200

DELAY ▶▶
0.00

REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S7 – G2 – W1



ZERO ▶▶
9.428

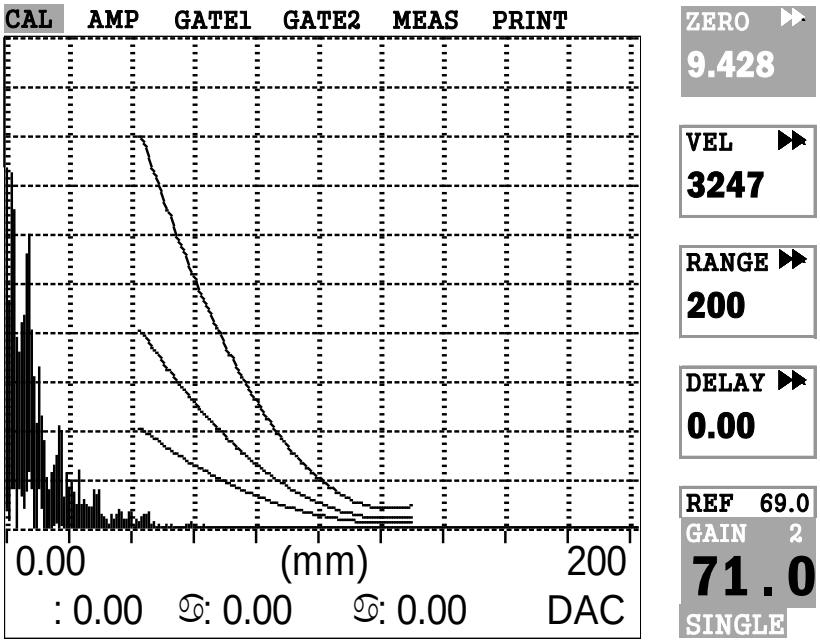
VEL ▶▶
3247

RANGE ▶▶
200

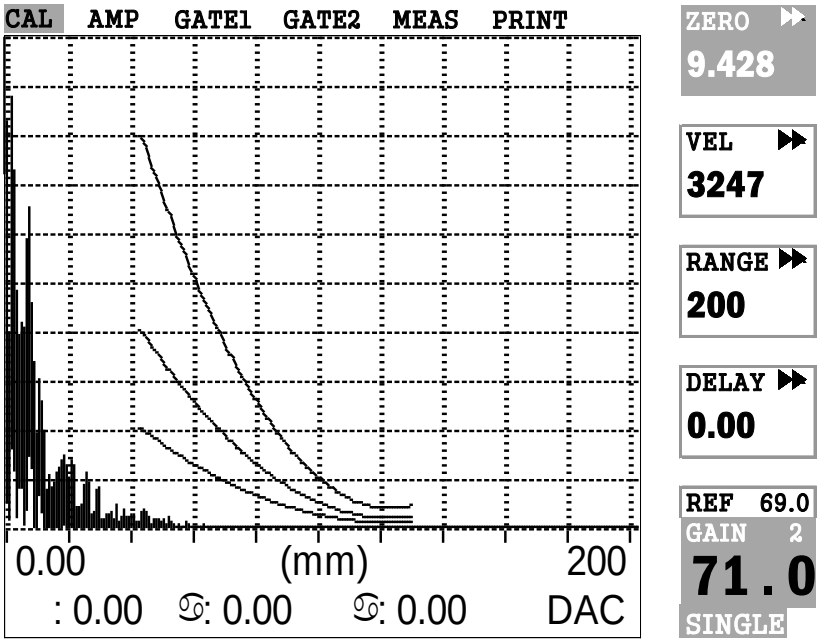
DELAY ▶▶
0.00

REF 69.0
GAIN 2
71.0
SINGLE

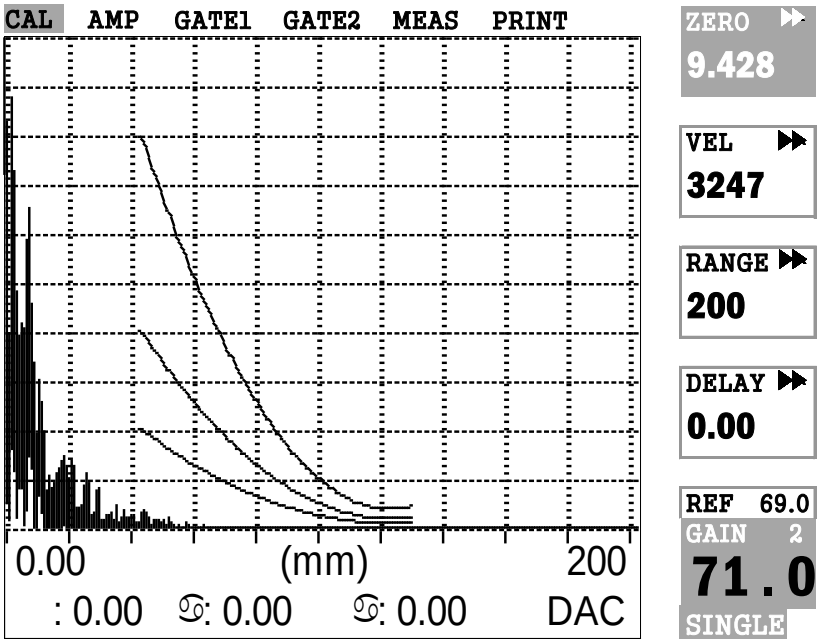
LOCATION : S7 – G2 – W3



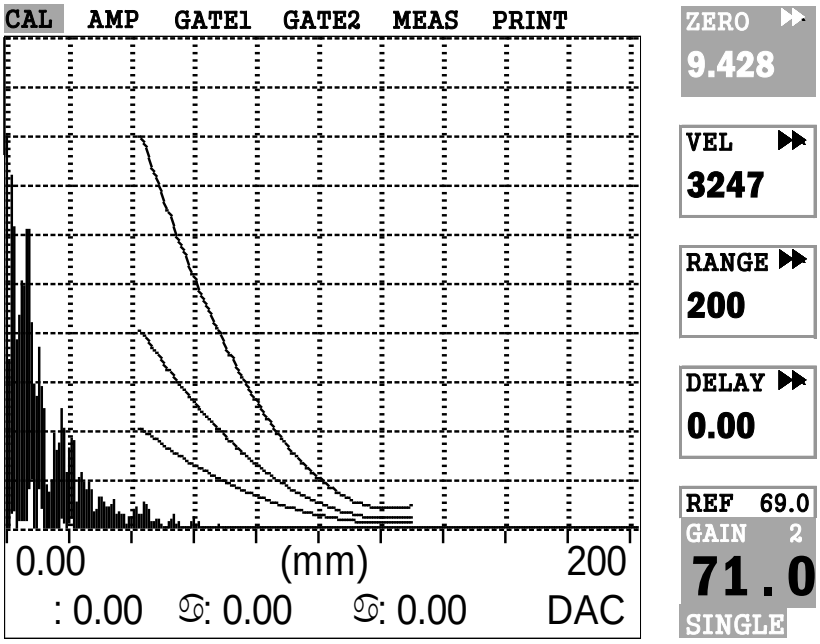
LOCATION : S8 – G1 – W2



LOCATION : S8 – G1 – W4

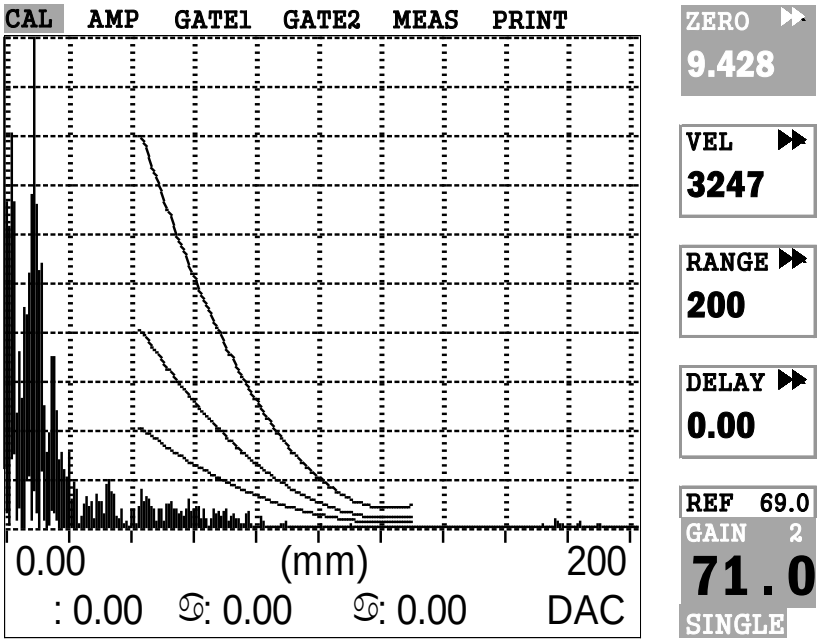


LOCATION : S8 – G2 – W1



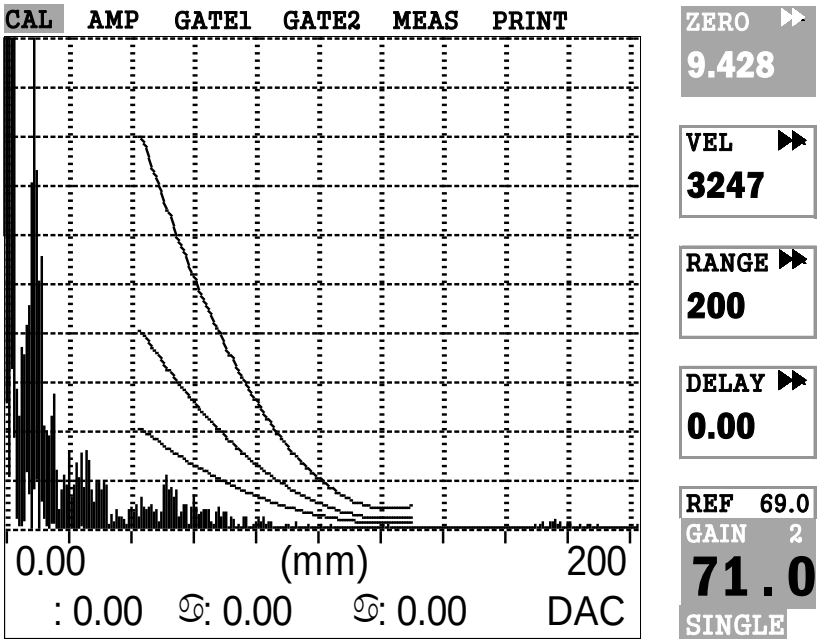
ZERO
9.428
VEL
3247
RANGE
200
DELAY
0.00
REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S8 – G2 – W3



ZERO
9.428
VEL
3247
RANGE
200
DELAY
0.00
REF 69.0
GAIN 2
71.0
SINGLE

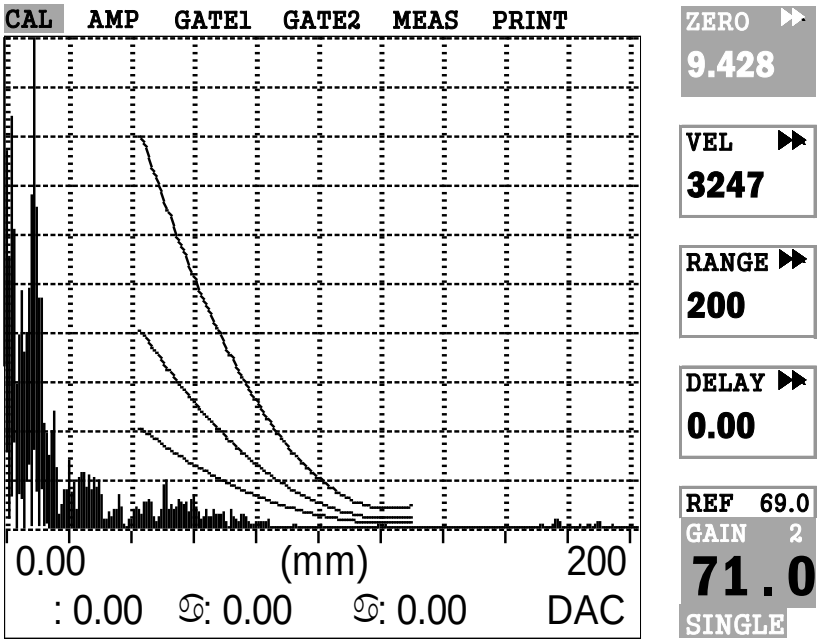
LOCATION : S8 – G2 – W3



ZERO
9.428
VEL
3247
RANGE
200
DELAY
0.00
REF 69.0
GAIN 2
71.0
SINGLE

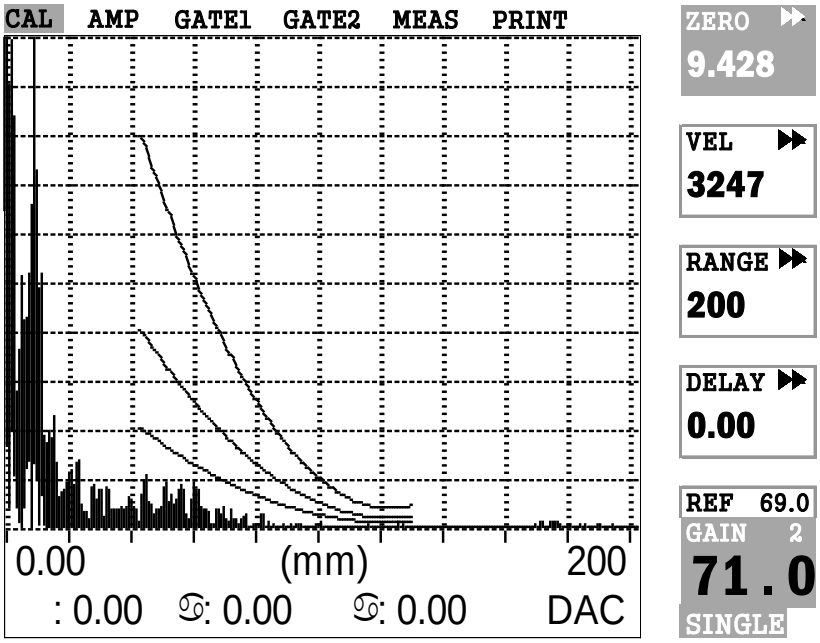
(주)금가

LOCATION : S9 – G1 – W4



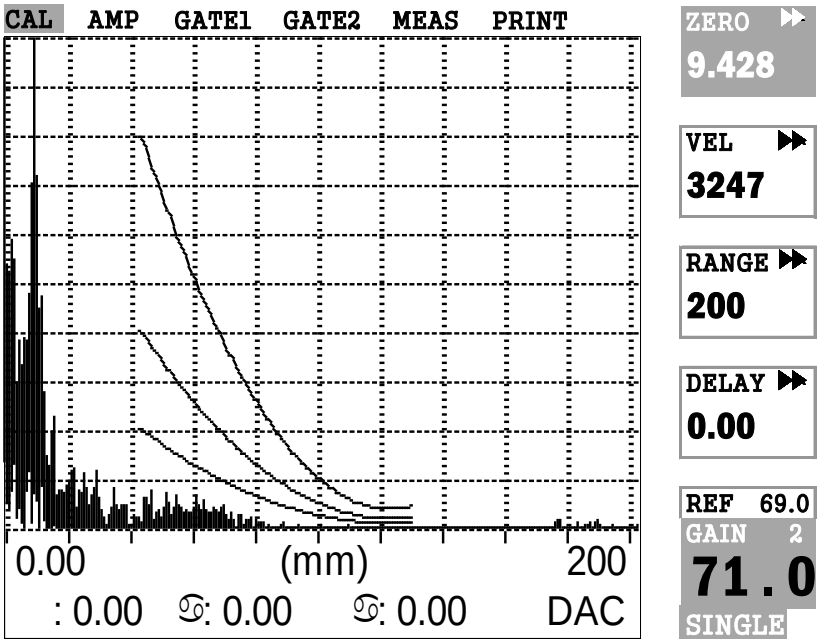
ZERO 9.428
VEL 3247
RANGE 200
DELAY 0.00
REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S9 – G2 – W1



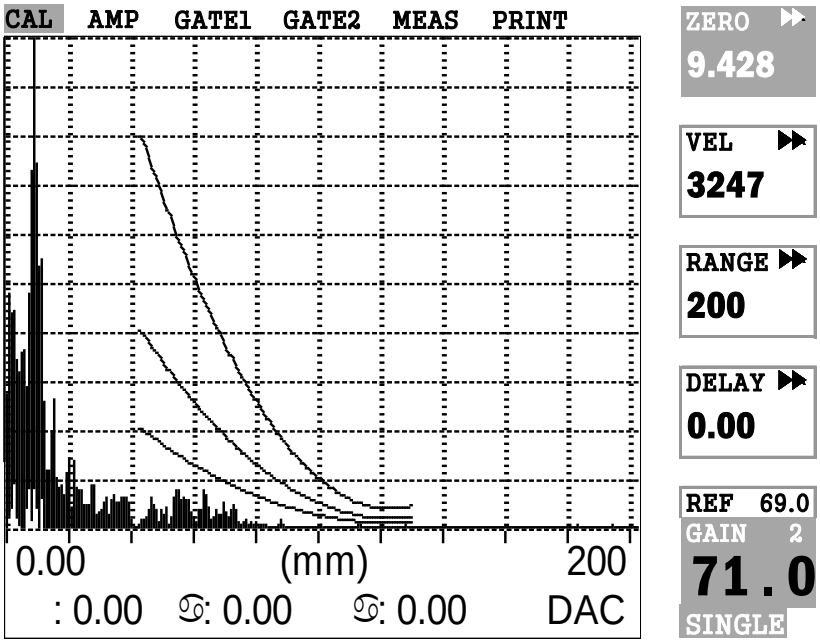
ZERO 9.428
VEL 3247
RANGE 200
DELAY 0.00
REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S9 – G2 – W3



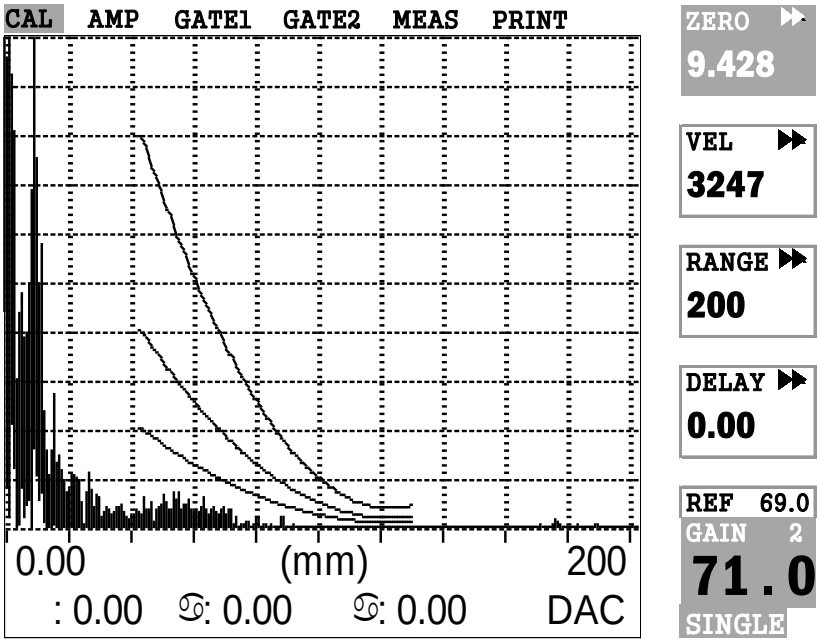
ZERO 9.428
VEL 3247
RANGE 200
DELAY 0.00
REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S10 – G1 – W2



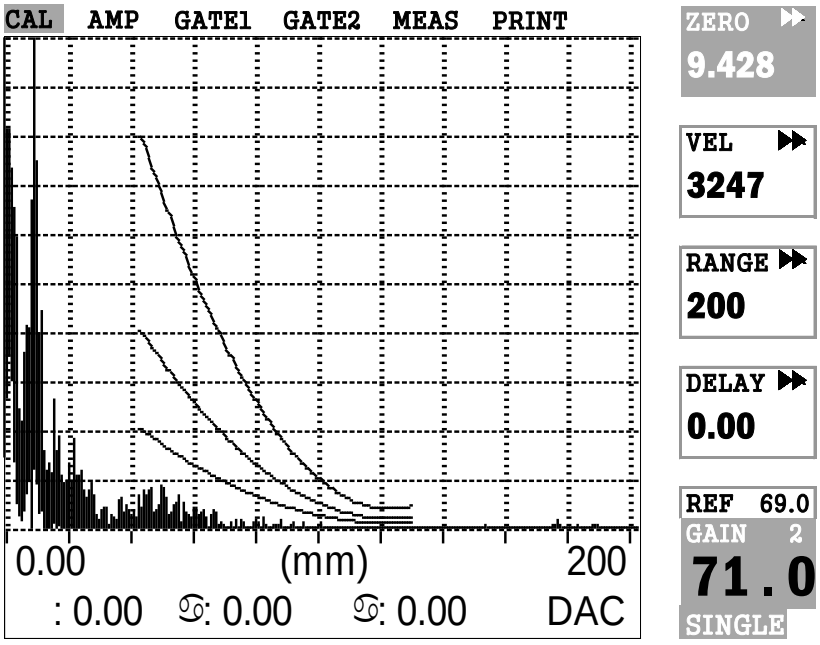
ZERO
9.428
VEL
3247
RANGE
200
DELAY
0.00
REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S10 – G1 – W4



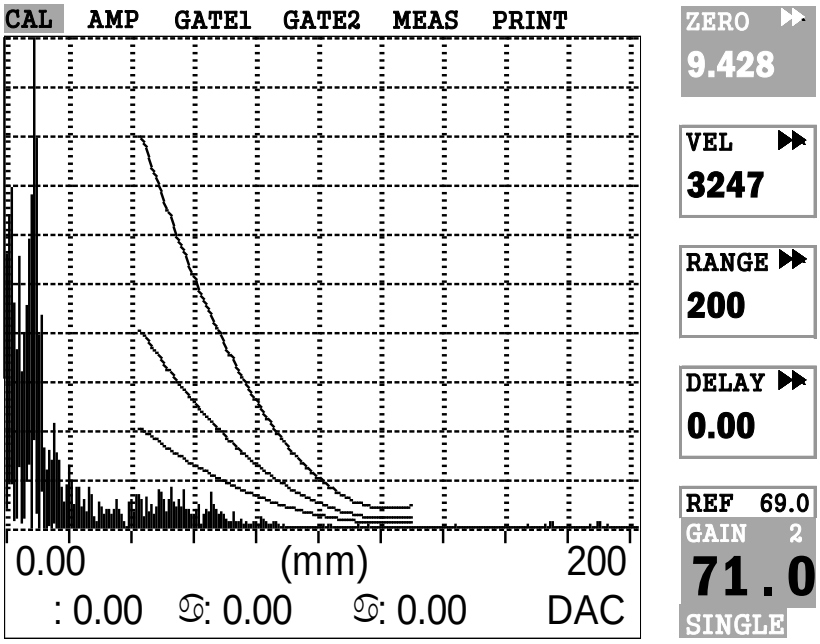
ZERO
9.428
VEL
3247
RANGE
200
DELAY
0.00
REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S10 – G2 – W1

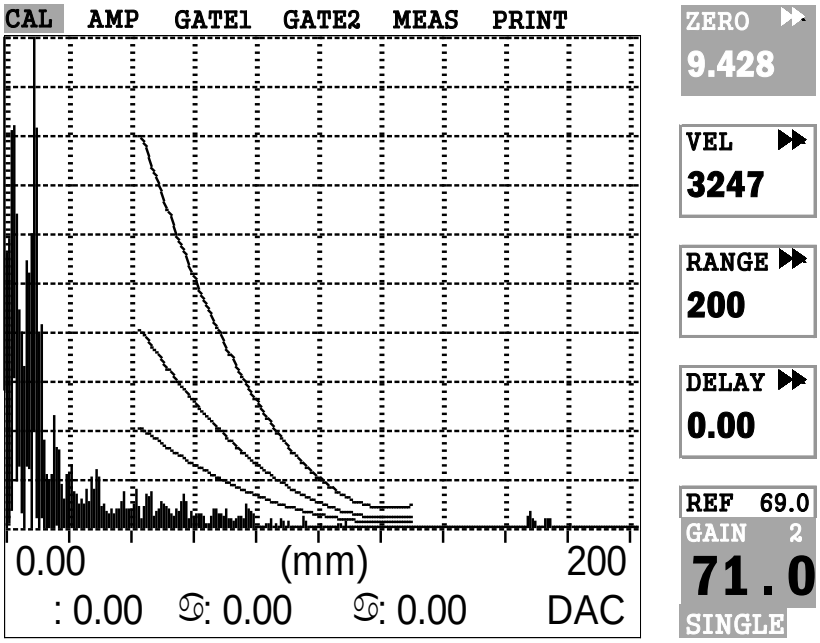


ZERO
9.428
VEL
3247
RANGE
200
DELAY
0.00
REF 69.0
GAIN 2
71.0
SINGLE

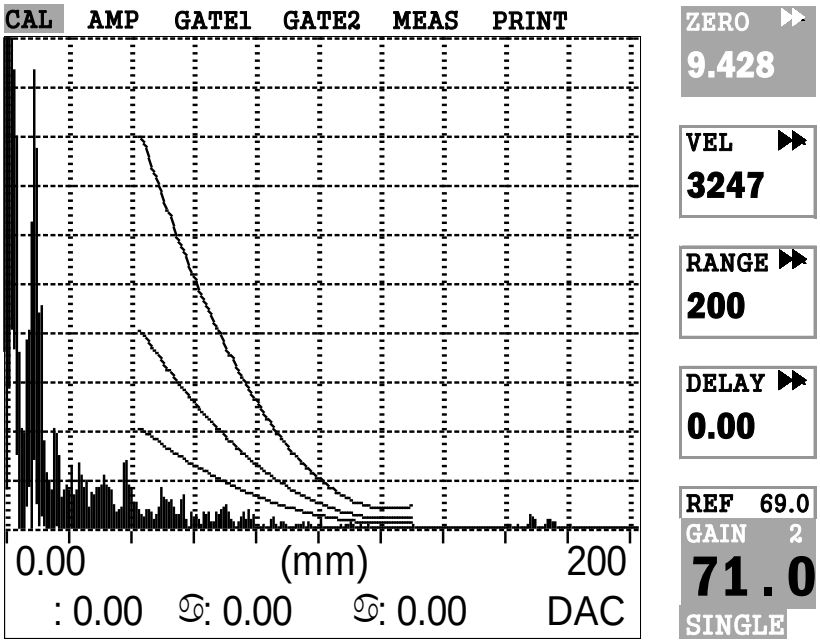
LOCATION : S10 – G2 – W3



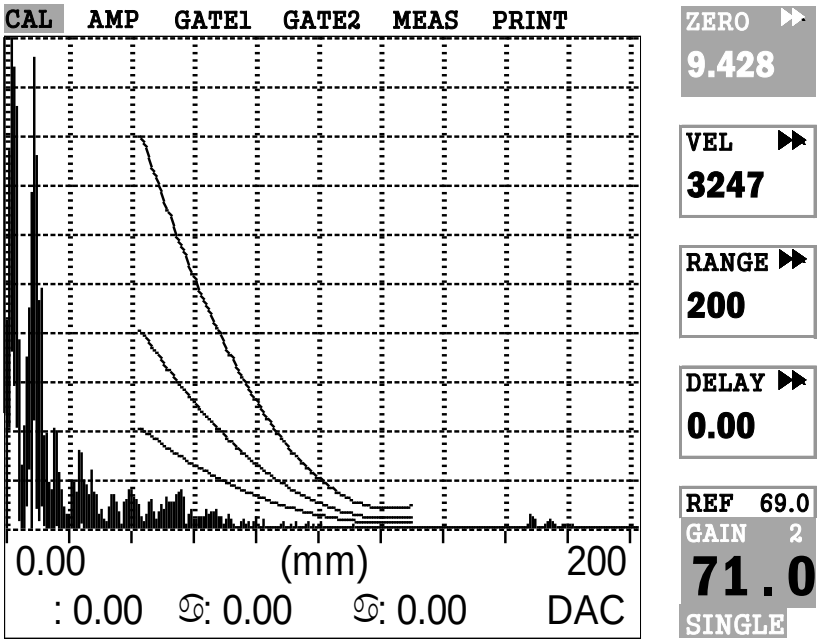
LOCATION : S11 – G1 – W2



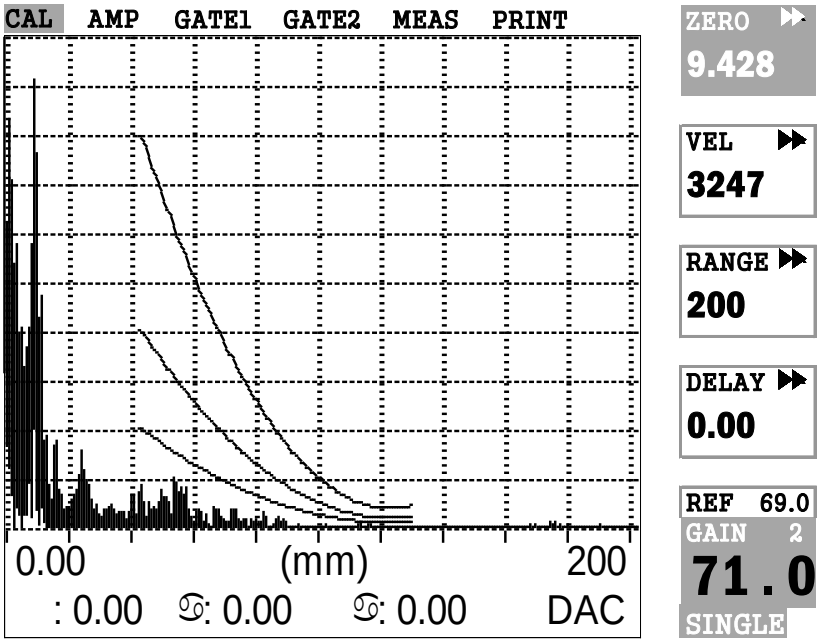
LOCATION : S11 – G1 – W4



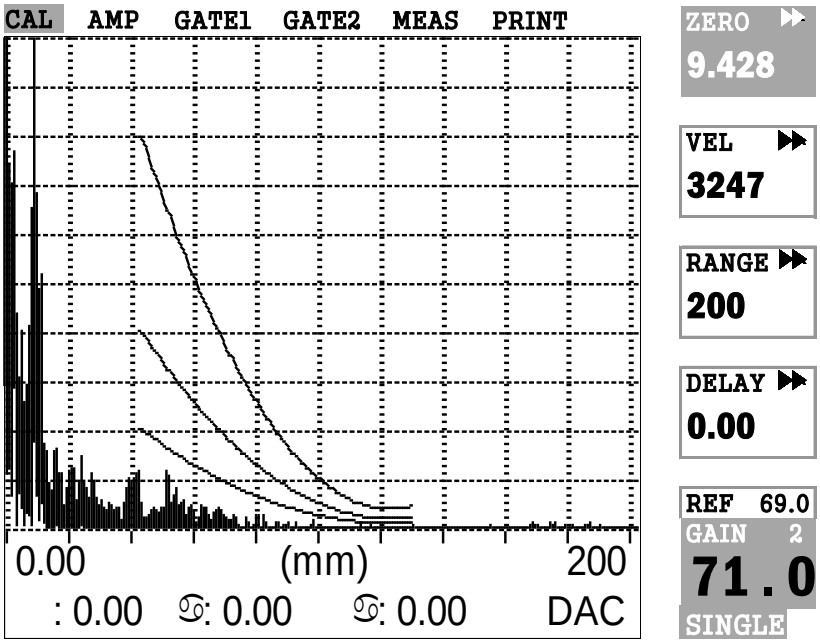
LOCATION : S11 – G2 – W1



LOCATION : S11 – G2 – W3

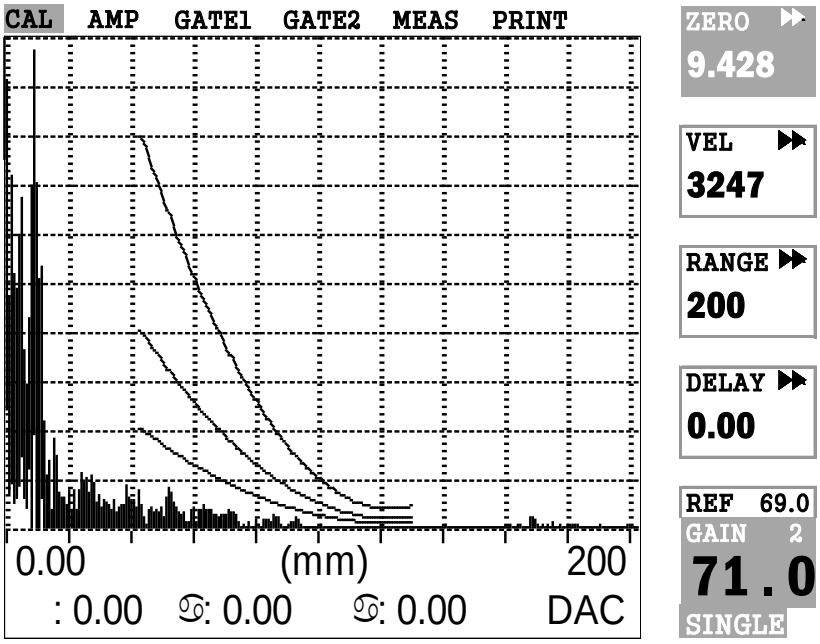


LOCATION : S12 – G1 – W2

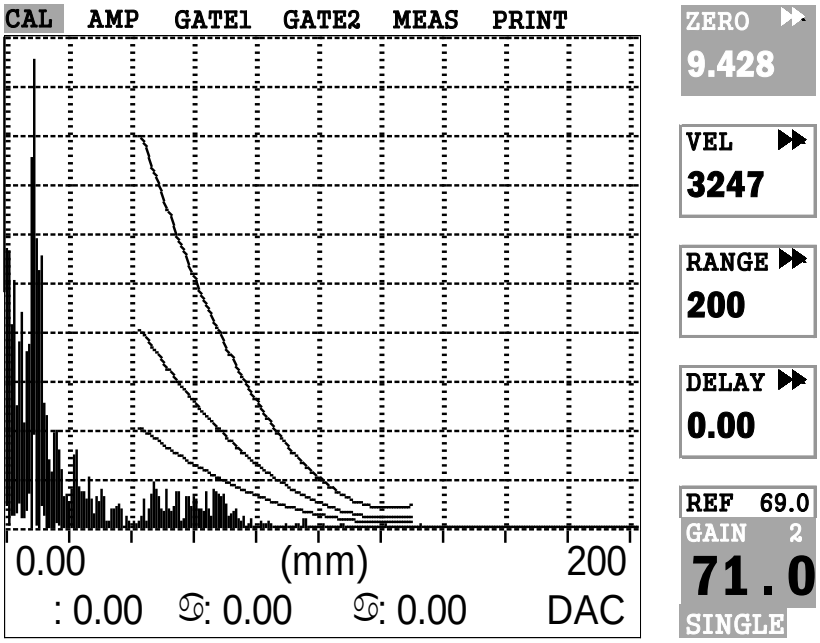


(주)금가

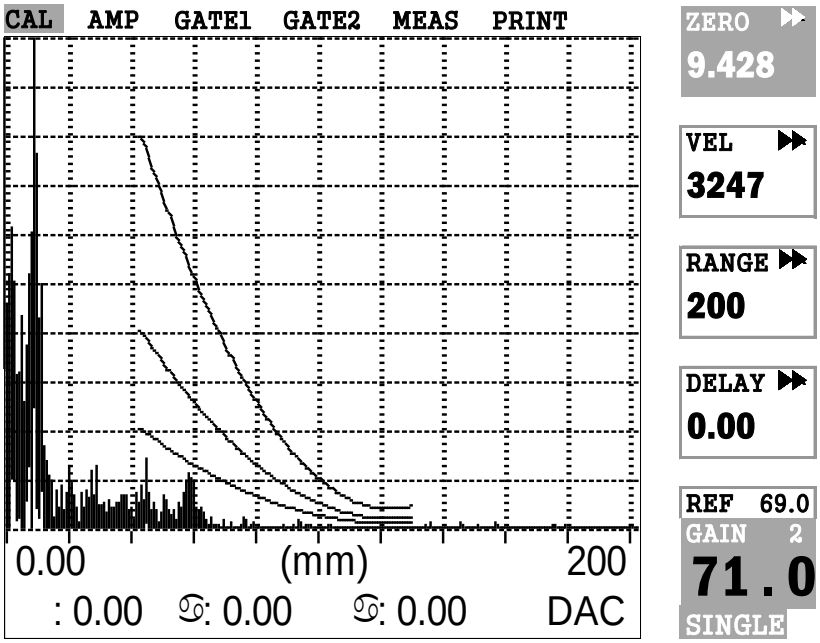
LOCATION : S12 – G1 – W4



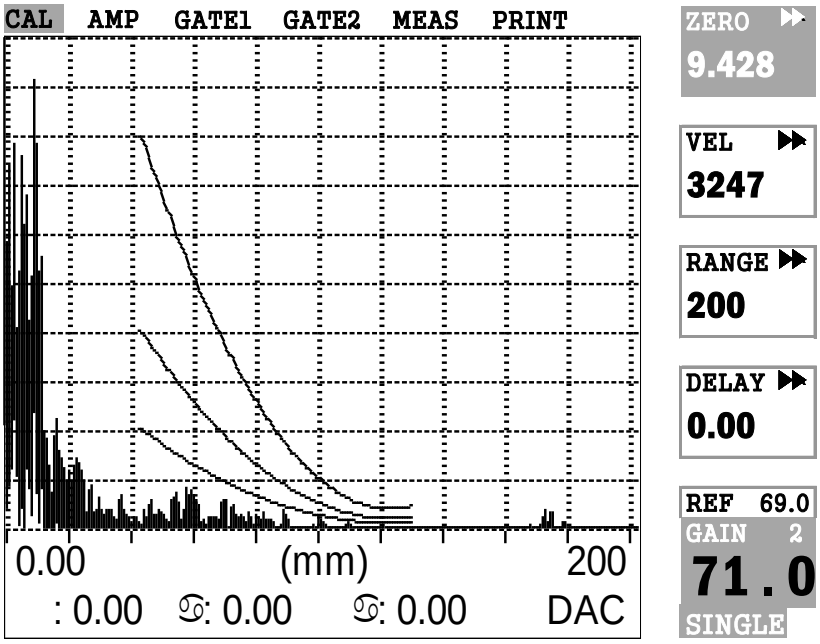
LOCATION : S12 – G2 – W1



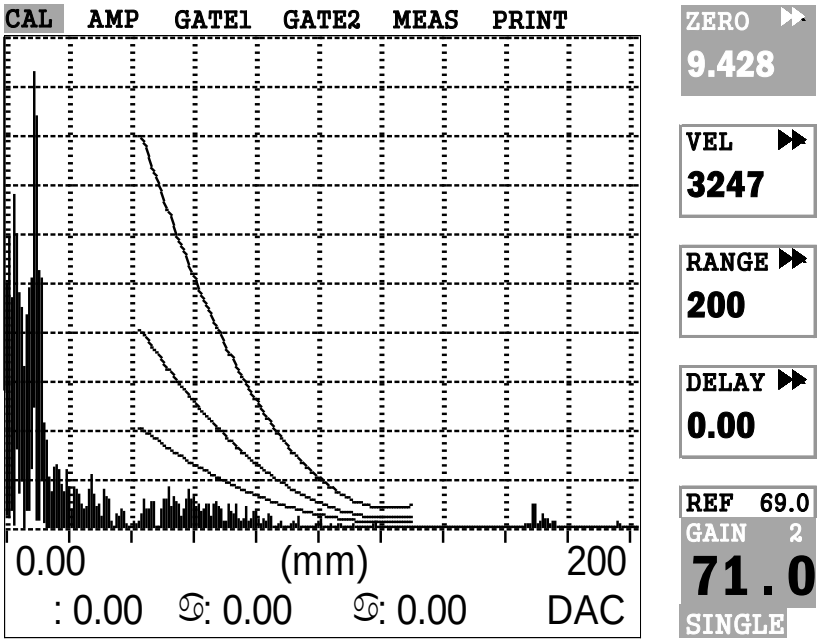
LOCATION : S12 – G2 – W3



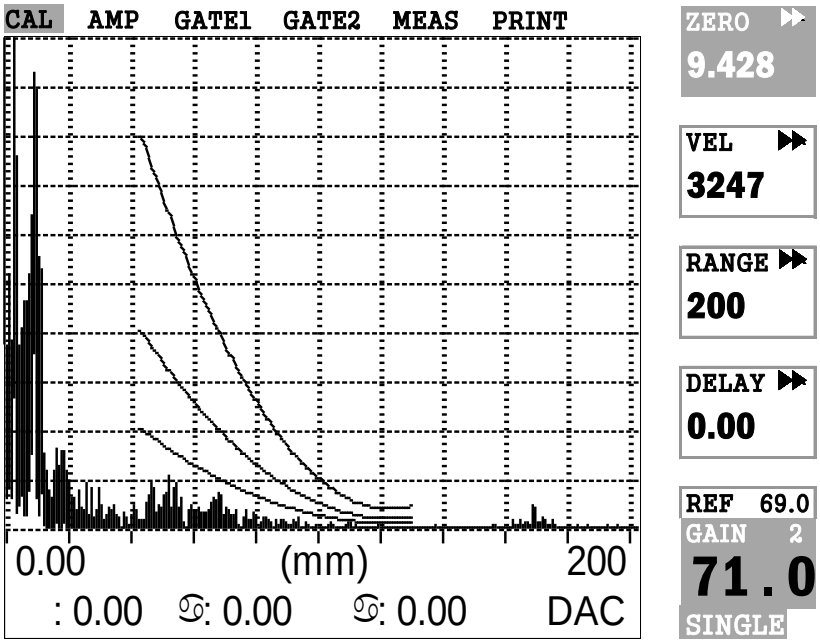
LOCATION : S13 – G1 – W2



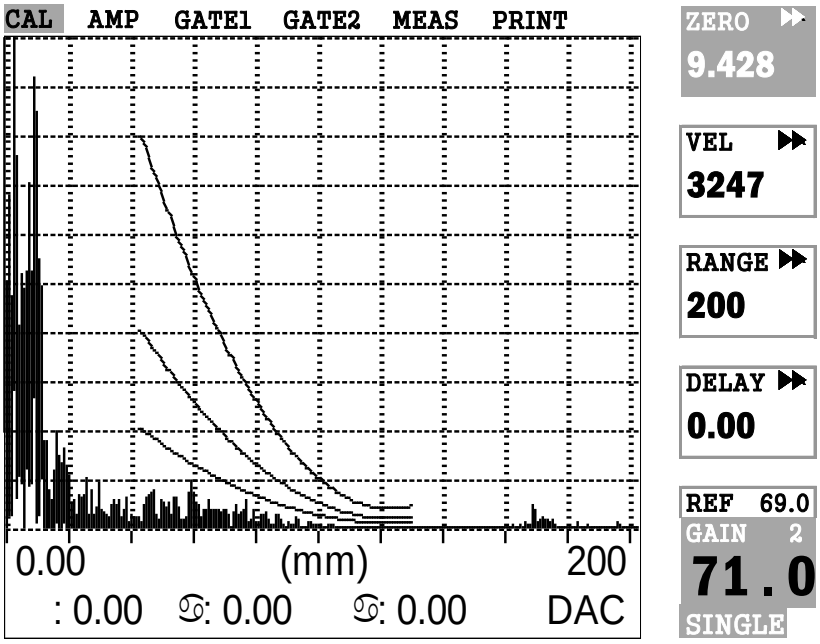
LOCATION : S13 – G1 – W4



LOCATION : S13 – G2 – W1

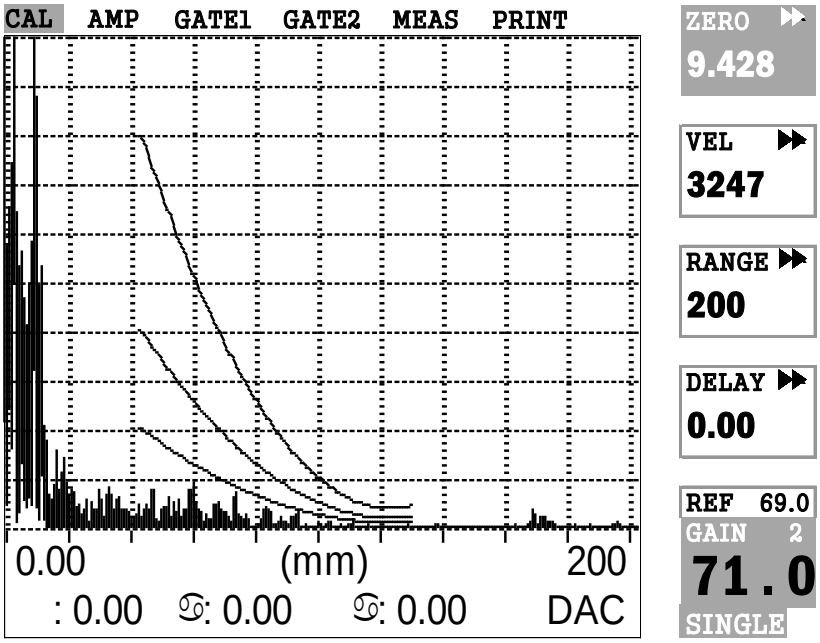


LOCATION : S13 – G2 – W3



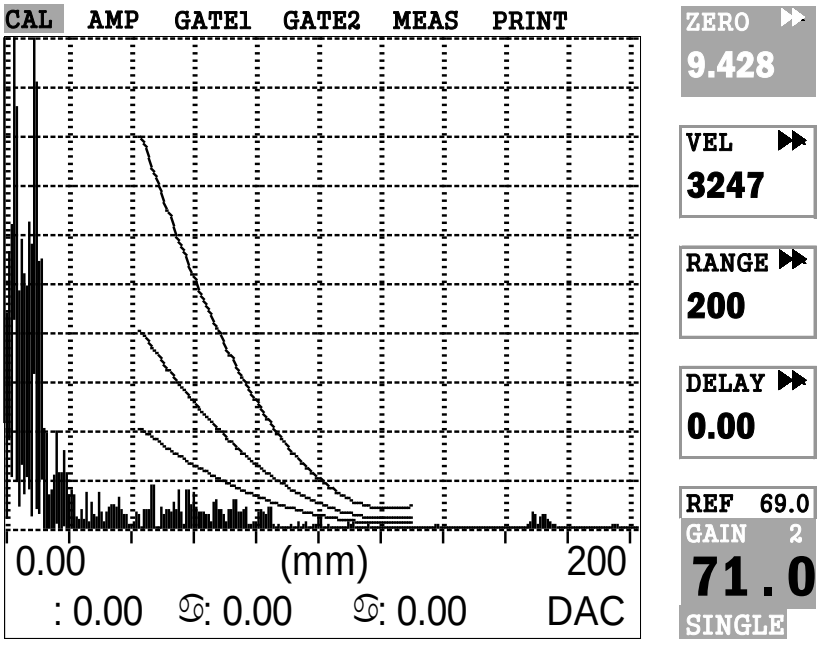
ZERO ▶▶
9.428
VEL ▶▶
3247
RANGE ▶▶
200
DELAY ▶▶
0.00
REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S14 – G1 – W1



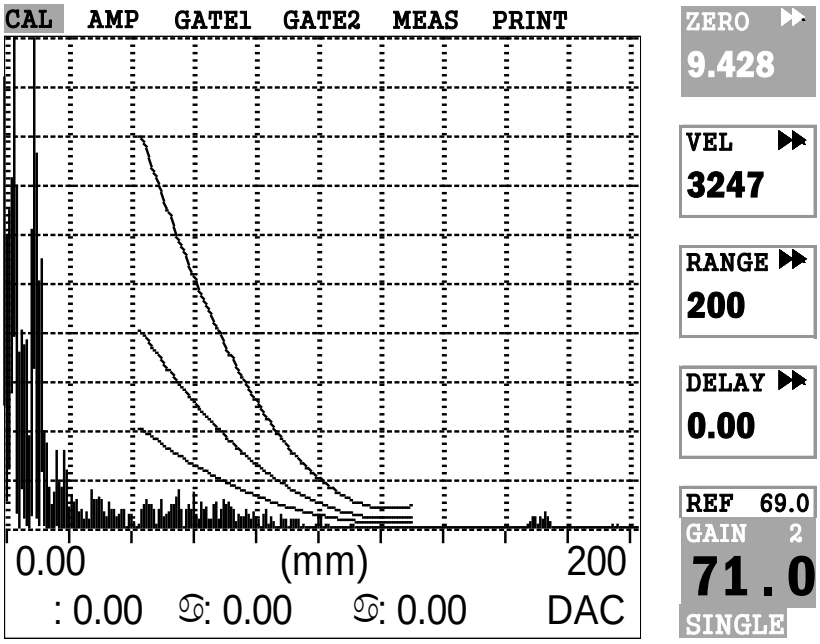
ZERO ▶▶
9.428
VEL ▶▶
3247
RANGE ▶▶
200
DELAY ▶▶
0.00
REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S14 – G1 – W2



ZERO ▶▶
9.428
VEL ▶▶
3247
RANGE ▶▶
200
DELAY ▶▶
0.00
REF 69.0
GAIN 2
71.0
SINGLE

LOCATION : S14 – G2 – W1



LOCATION : S14 – G2 – W2