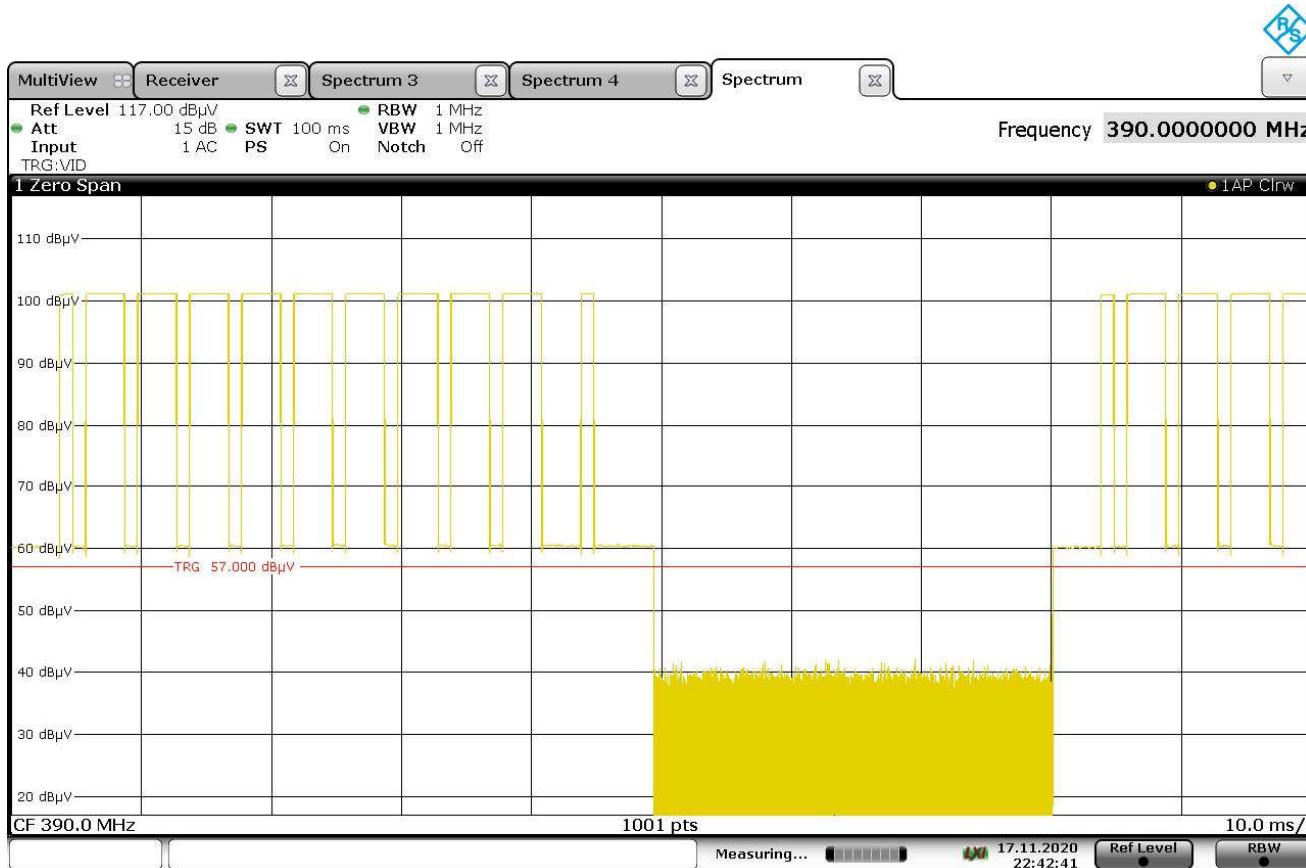


DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	390MHz (9 DIP Code - Chamberlain)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	<p>Duty Cycle Calculation:</p> $12.5 \times 3.0\text{ms} = 37.5\text{ms}$ $3 \times 1.0\text{ms} = 3.0\text{ms}$ $37.5 + 3.0 = 40.5\text{ms}$ $\text{D.C.} = 20\log(40.5/100) = -10.75\text{dB}$

DUTY CYCLE

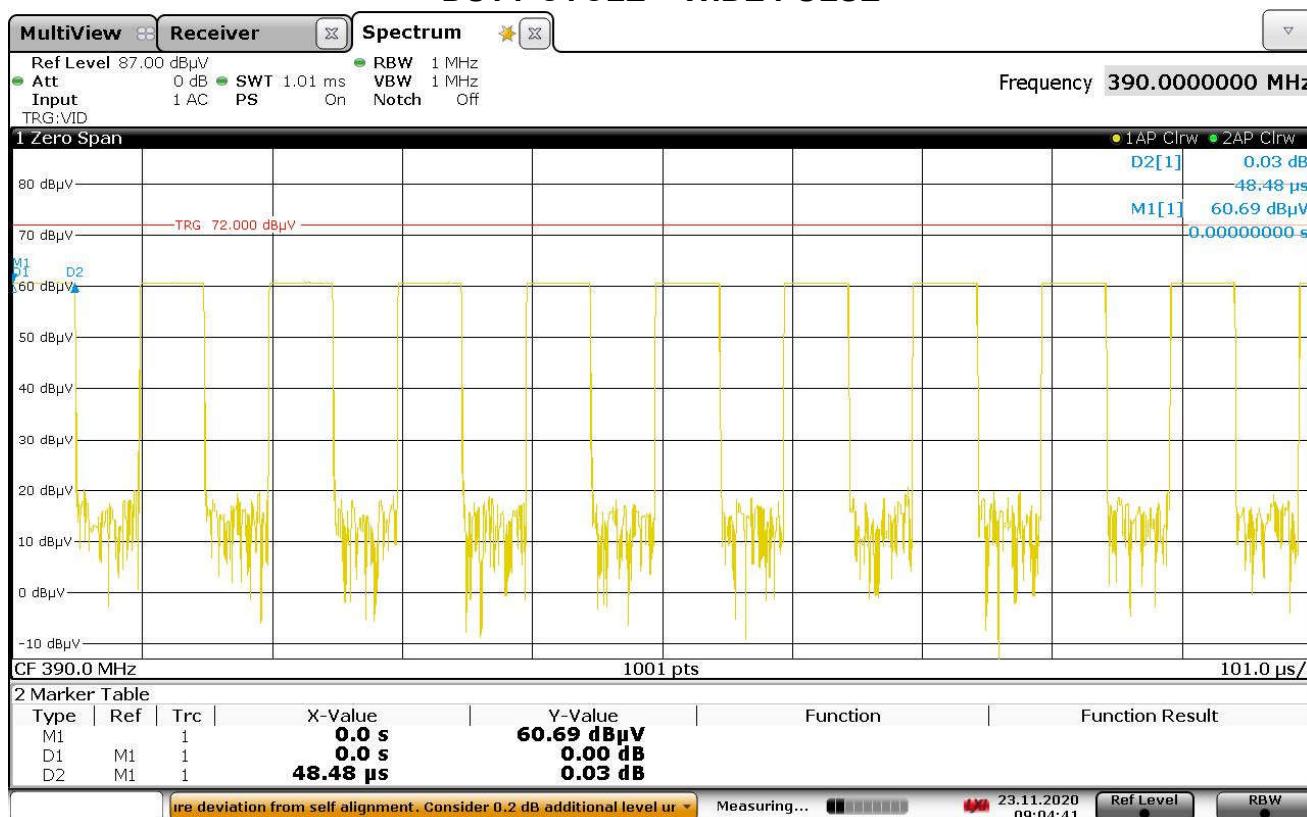


22:42:41 17.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	390MHz (9 DIP Code - Genie)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	Wide Pulse = 48.48 μ s = 0.048ms

DUTY CYCLE – WIDE PULSE

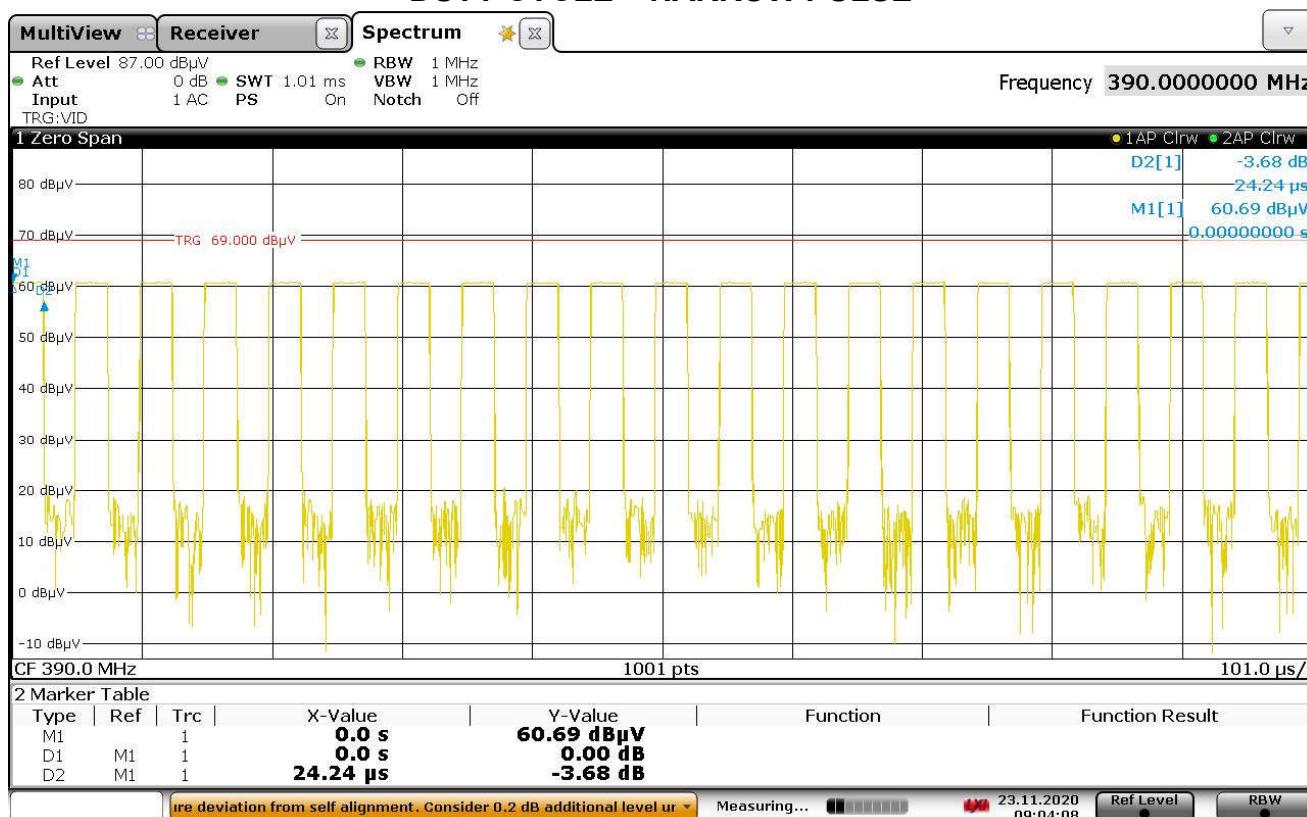


09:04:41 23.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	390MHz (9 DIP Code - Genie)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	Narrow Pulse = 24.0 μ s = 0.024ms

DUTY CYCLE – NARROW PULSE



DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	390MHz (9 DIP Code - Genie)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	

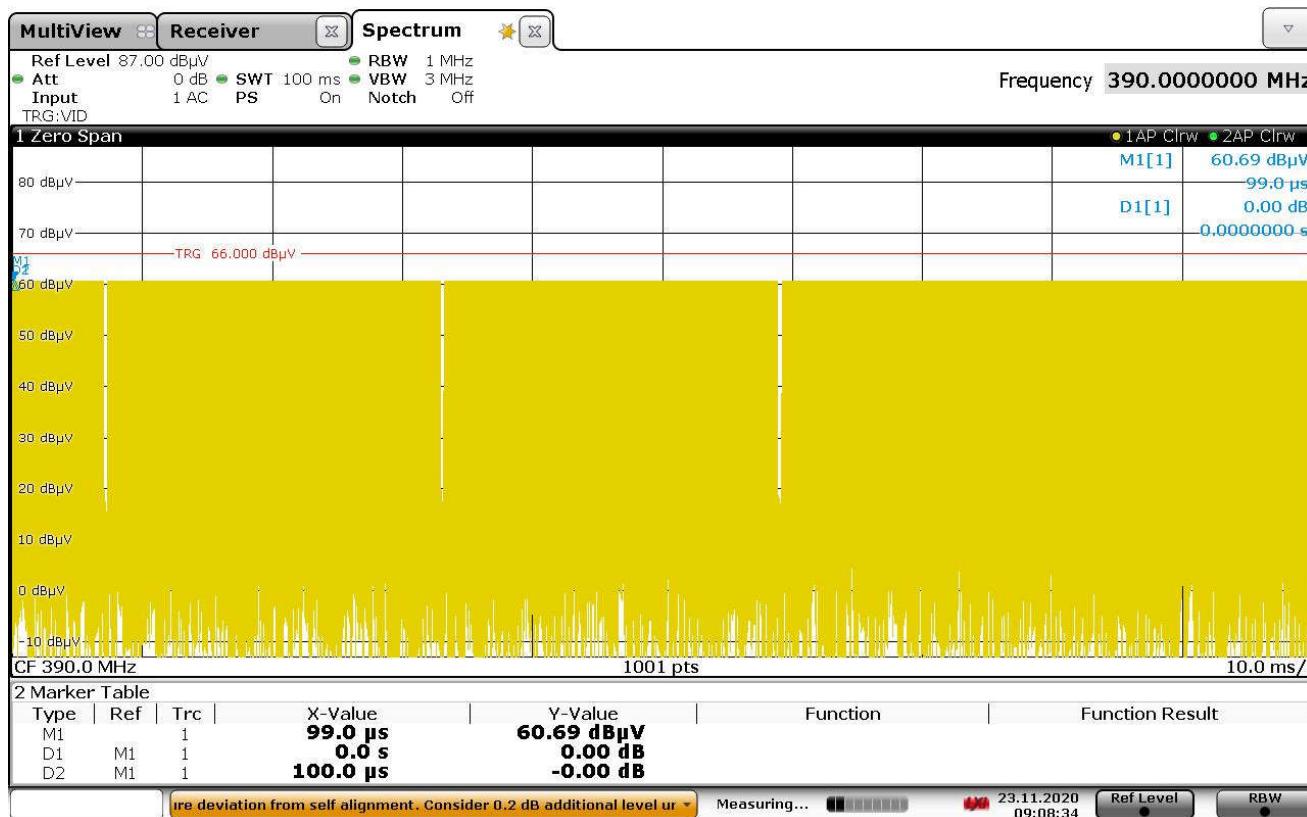
DUTY CYCLE -PULSE



DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	390MHz (9 DIP Code - Genie)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	Provided Duty Cycle Calculation used: -6dB (50% Duty Cycle)

DUTY CYCLE



09:08:35 23.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	303MHz (Fixed Long Code)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	Wide Pulse = 990.0 μ s = 0.99ms

DUTY CYCLE – WIDE PULSE

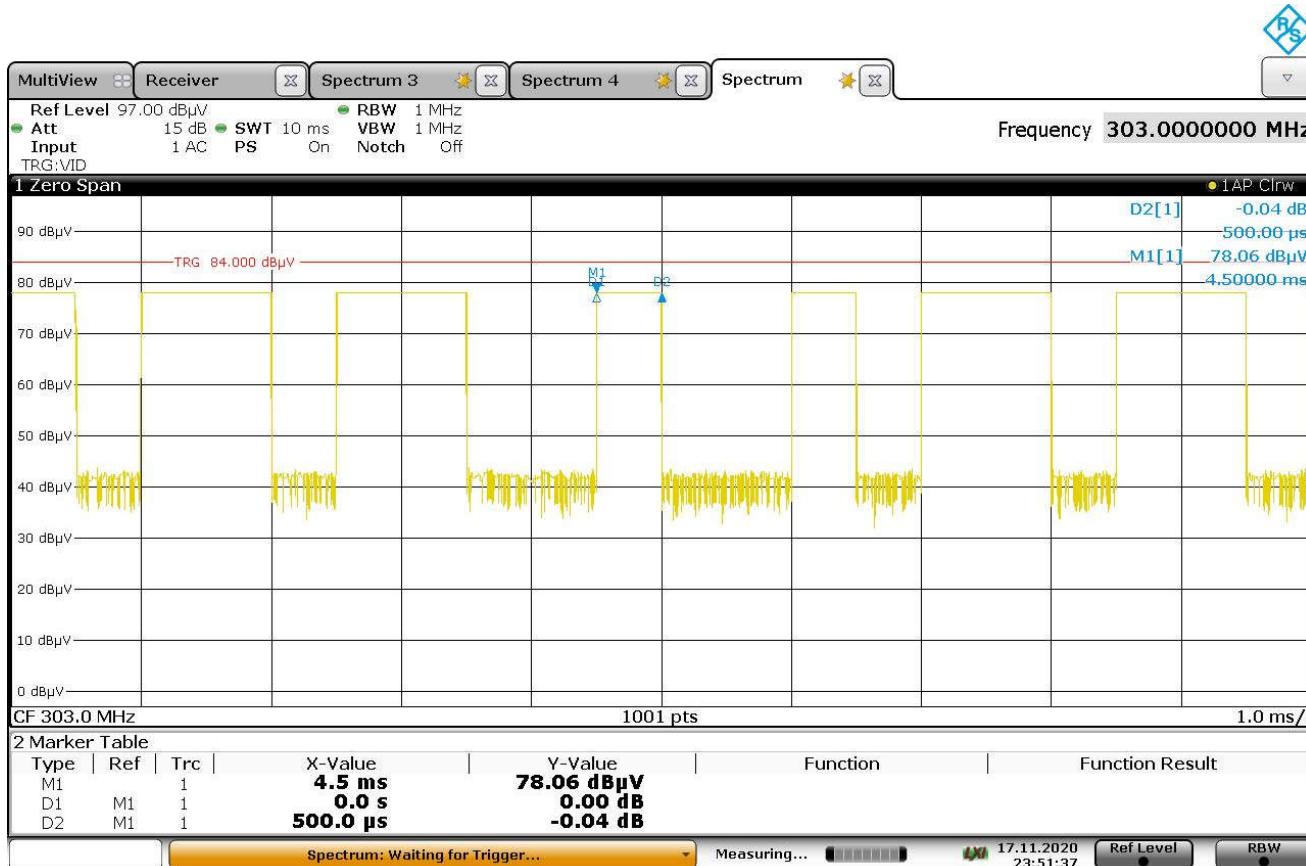


23:50:33 17.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	303MHz (Fixed Long Code)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	Narrow Pulse = $500.0\mu\text{s} = 0.5\text{ms}$

DUTY CYCLE – NARROW PULSE

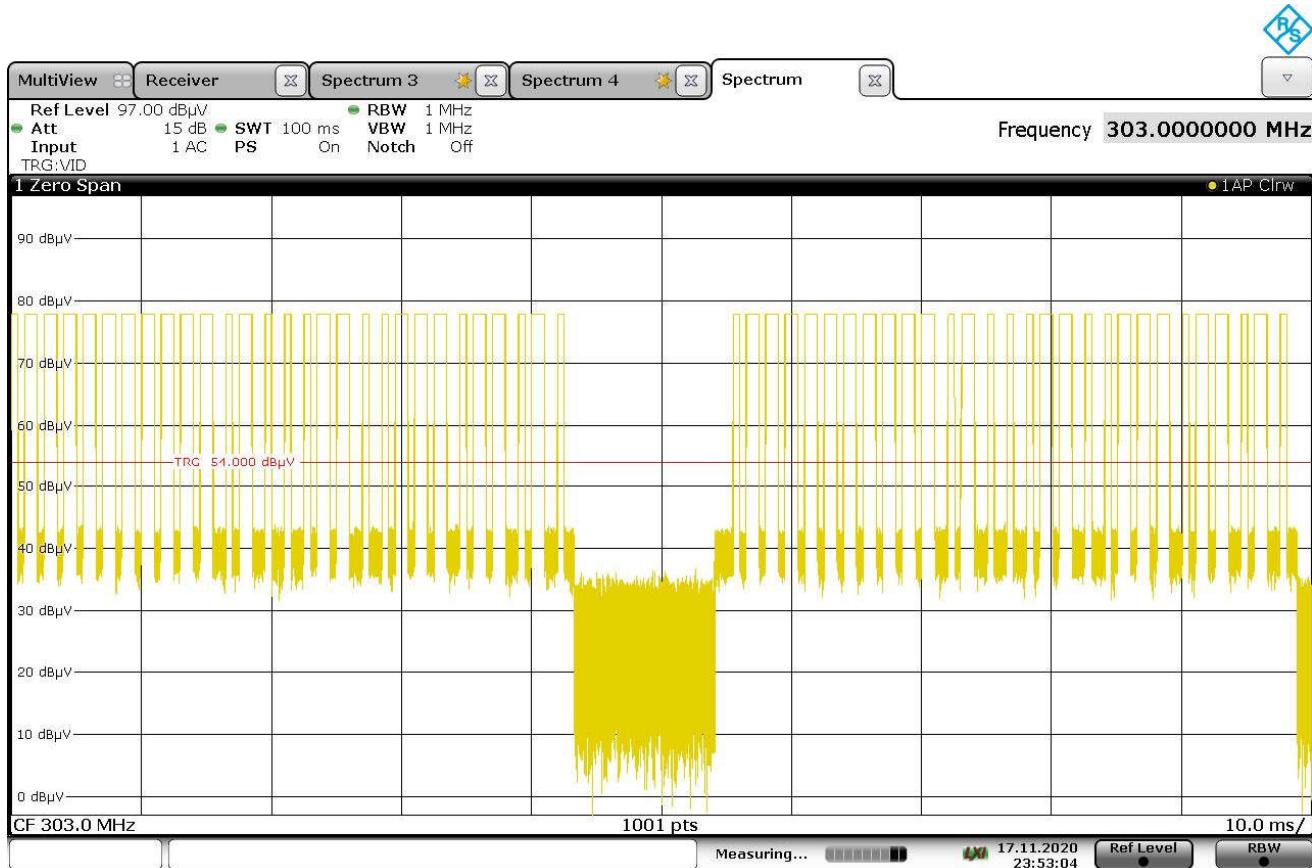


23:51:38 17.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	303MHz (Fixed Long Code)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	<p>Duty Cycle Calculation:</p> $38 \times 0.99\text{ms} = 37.62\text{ms}$ $20 \times 0.5\text{ms} = 10.0\text{ms}$ $37.62 + 10.0 = 47.62\text{ms}$ $\text{D.C.} = 20\log(47.62/100) = \mathbf{-6.44\text{dB}}$

DUTY CYCLE

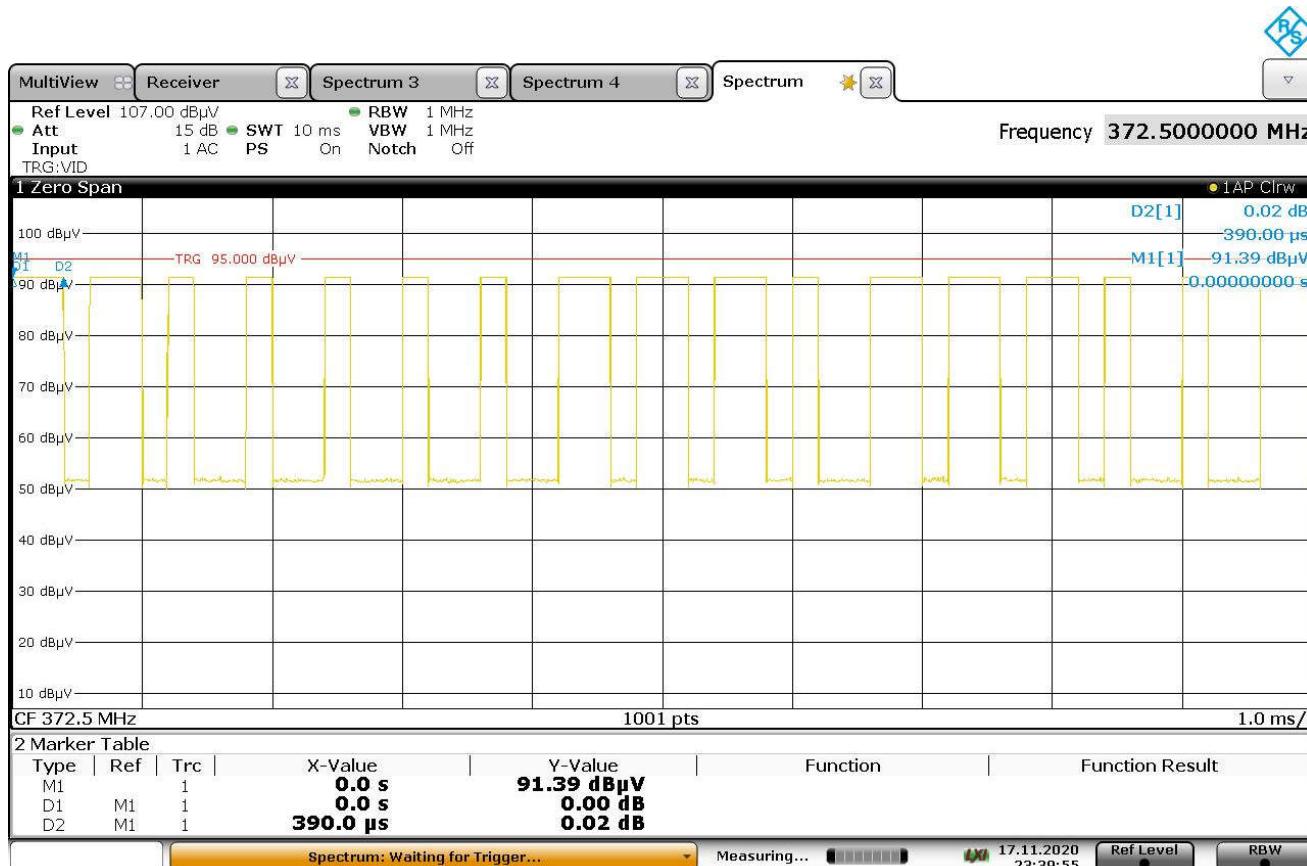


23:53:05 17.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	372.5MHz (Rolling Code - Ryobi)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	Wide Pulse = 390.0 μ s = 0.39ms

DUTY CYCLE – WIDE PULSE

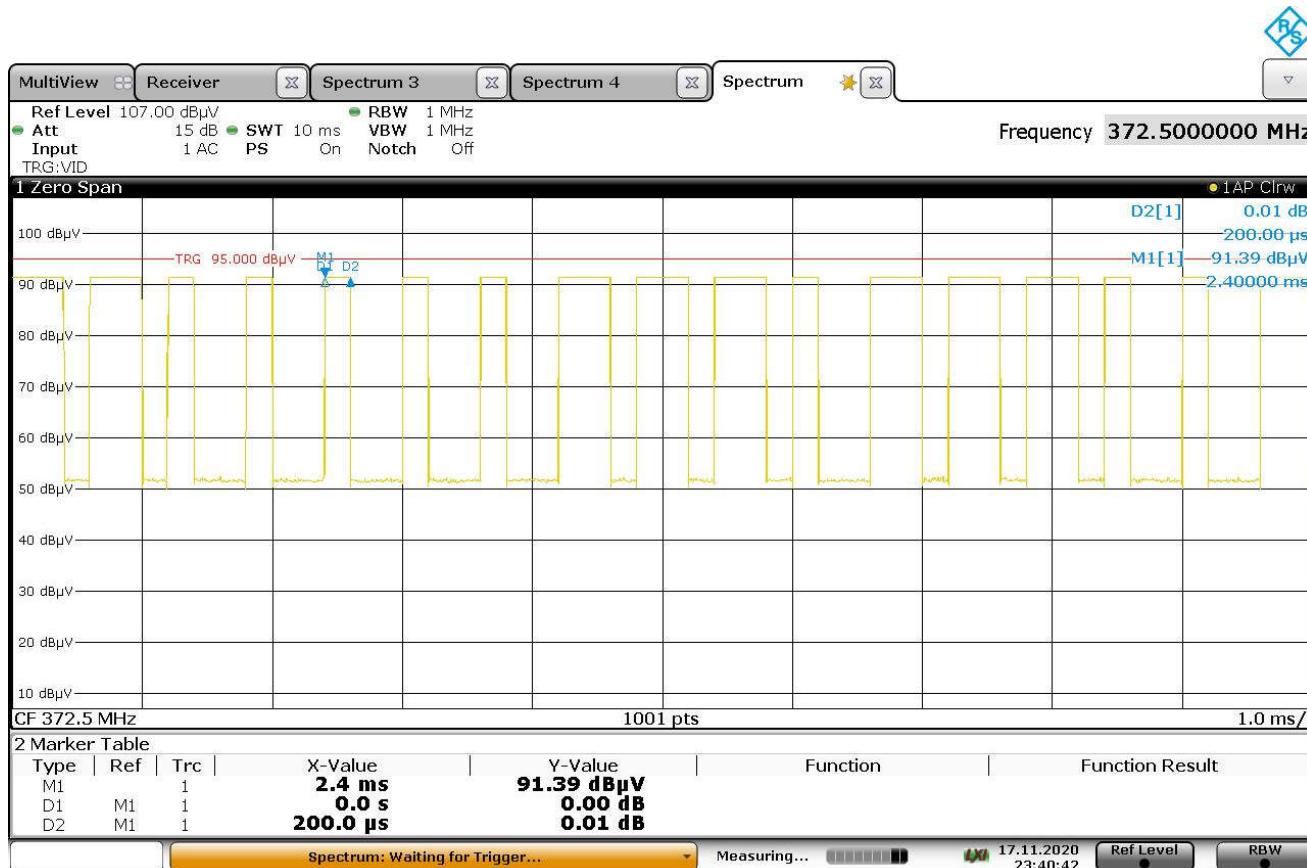


23:39:56 17.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	372.5MHz (Rolling Code - Ryobi)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	Narrow Pulse = 200.0 μ s = 0.2ms

DUTY CYCLE – NARROW PULSE

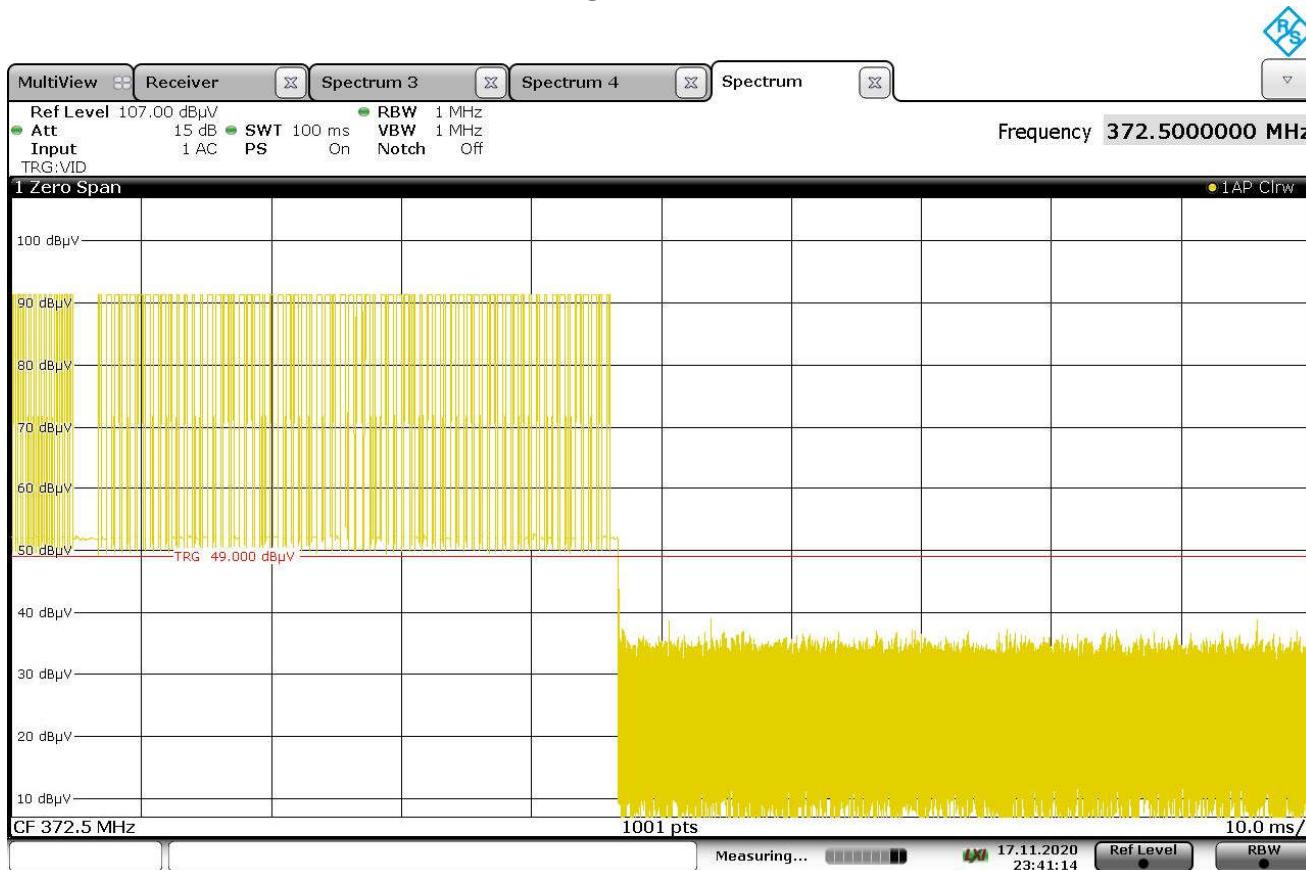


23:40:43 17.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	372.5MHz (Rolling Code - Ryobi)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	<p>Duty Cycle Calculation:</p> $44 \times 0.39\text{ms} = 17.16\text{ms}$ $34 \times 0.2\text{ms} = 6.8\text{ms}$ $17.16 + 6.8 = 23.96\text{ms}$ $\text{D.C.} = 20\log(23.96/100) = -12.41\text{dB}$

DUTY CYCLE

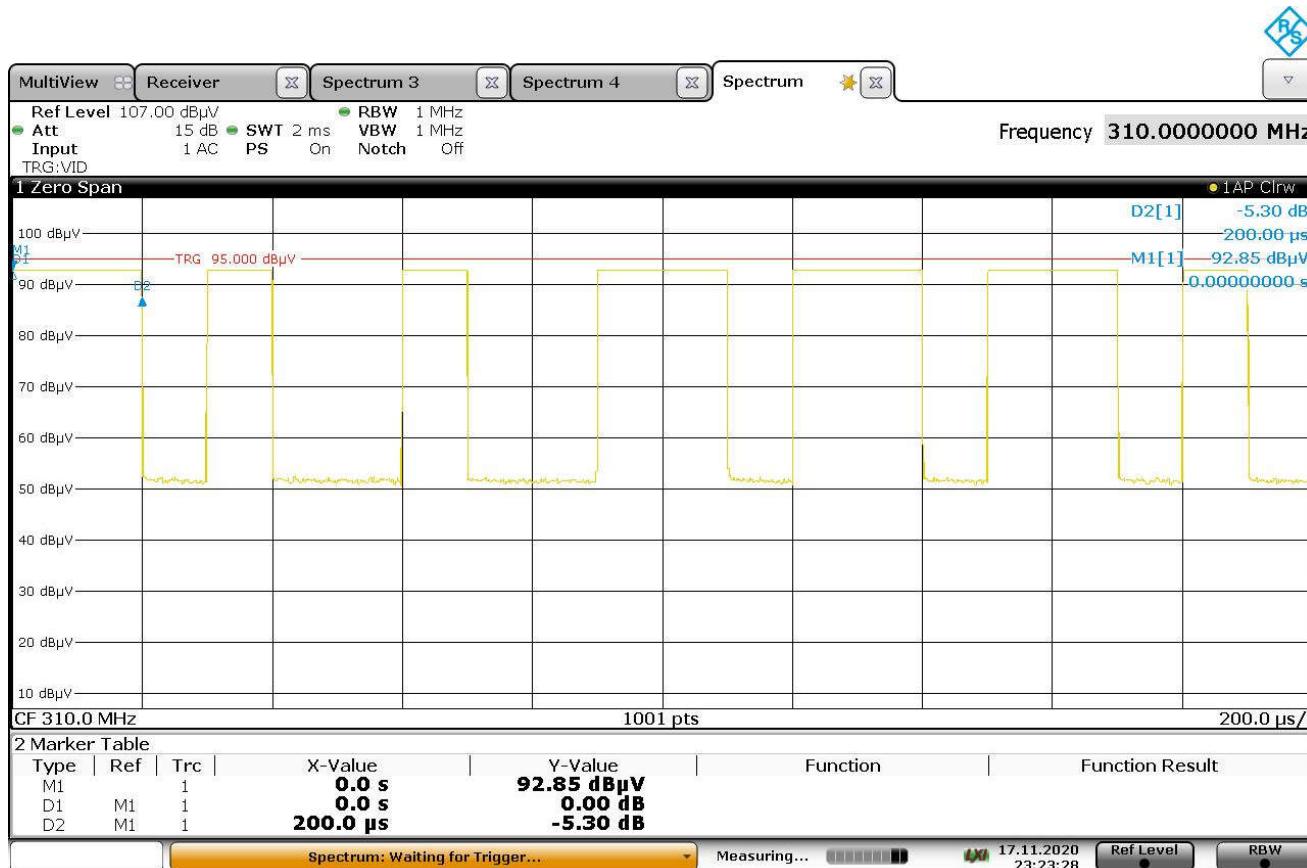


23:41:15 17.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	310MHz (Rolling Code)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	Wide Pulse = 200.0 μ s = 0.2ms

DUTY CYCLE – WIDE PULSE

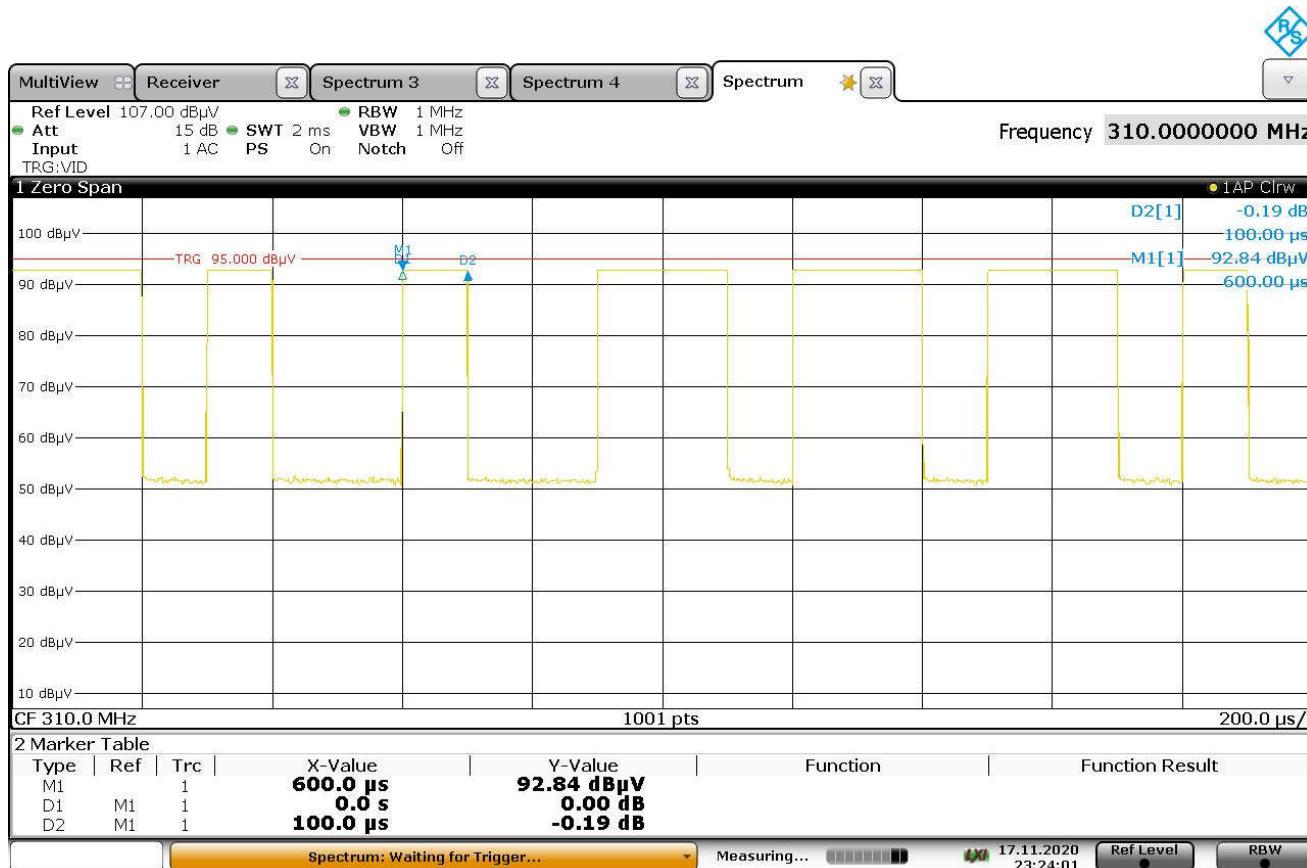


23:23:29 17.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	310MHz (Rolling Code)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	Narrow Pulse = 100.0 μ s = 0.1ms

DUTY CYCLE – NARROW PULSE

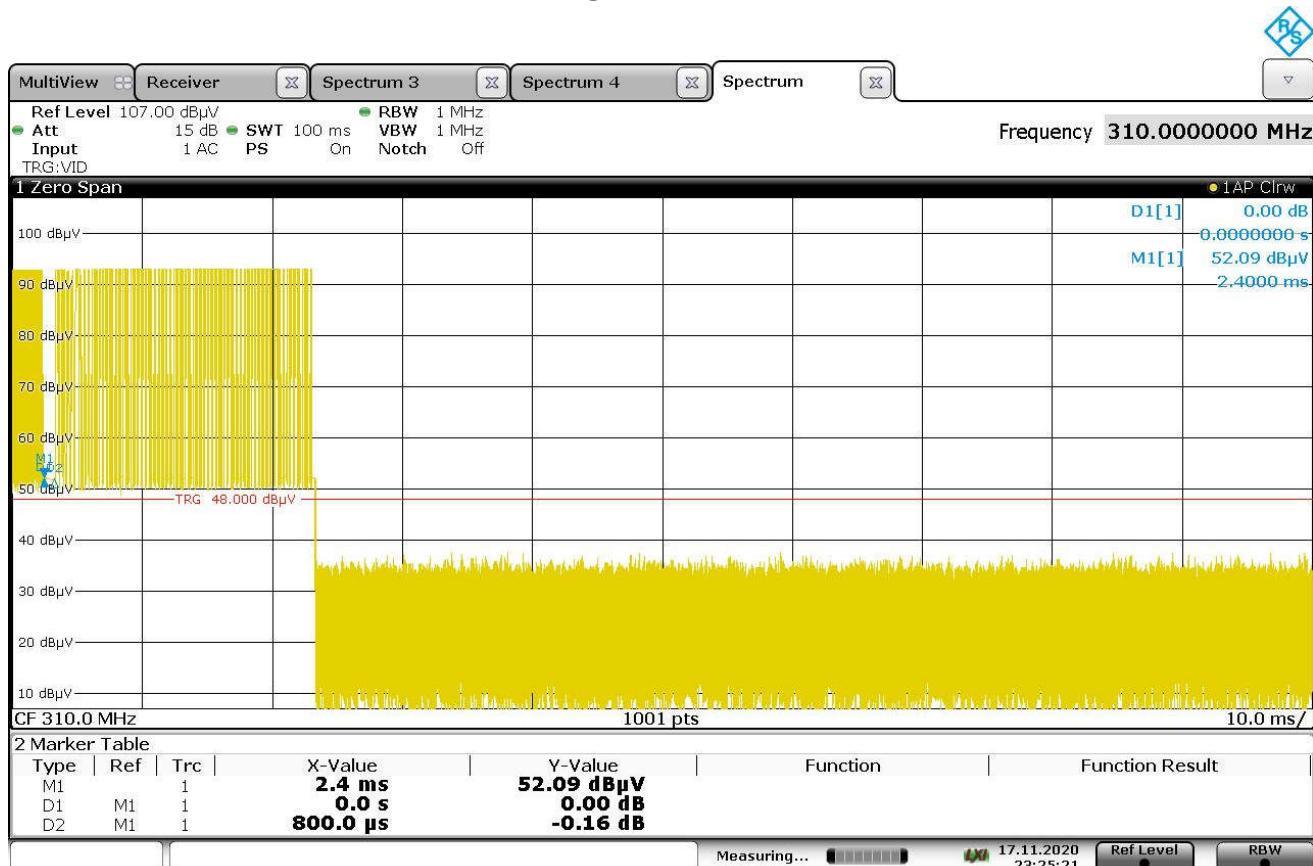


23:24:01 17.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	310MHz (Rolling Code)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	<p>Duty Cycle Calculation:</p> $44 \times 0.2\text{ms} = 8.4\text{ms}$ $36 \times 0.1\text{ms} = 3.6\text{ms}$ $8.4 + 3.6 = 12\text{ms}$ $\text{D.C.} = 20\log(12/100) = \mathbf{-18.416\text{dB}}$

DUTY CYCLE



23:25:22 17.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	315MHz (Synergy Fix Code)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	Wide Pulse = 1.5ms

DUTY CYCLE – WIDE PULSE



22:57:33 17.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	315MHz (Synergy Fix Code)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	Narrow Pulse = $750.0\mu\text{s} = 0.75\text{ms}$

DUTY CYCLE – NARROW PULSE



22:58:10 17.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	315MHz (Synergy Fix Code)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	<p>Duty Cycle Calculation:</p> $9 \times 1.5\text{ms} = 13.5\text{ms}$ $15 \times 0.75\text{ms} = 11.25\text{ms}$ $13.5 + 11.25 = 24.75\text{ms}$ $\text{D.C} = 20\log(24.75/100) = \mathbf{-12.128\text{dB}}$

DUTY CYCLE

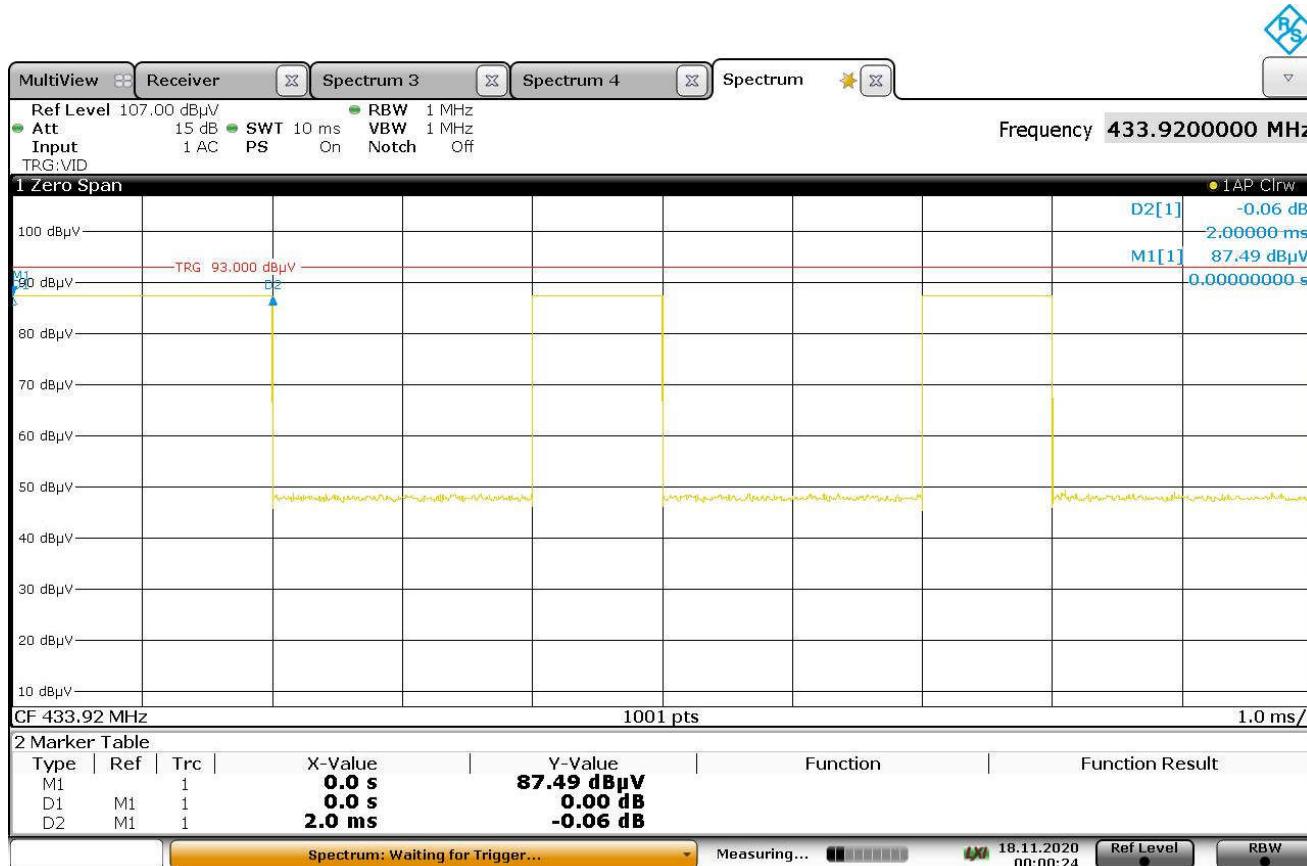


22:59:54 17.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	433.92MHz (EX Series Fix Code)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	Wide Pulse = 2.0ms

DUTY CYCLE – WIDE PULSE

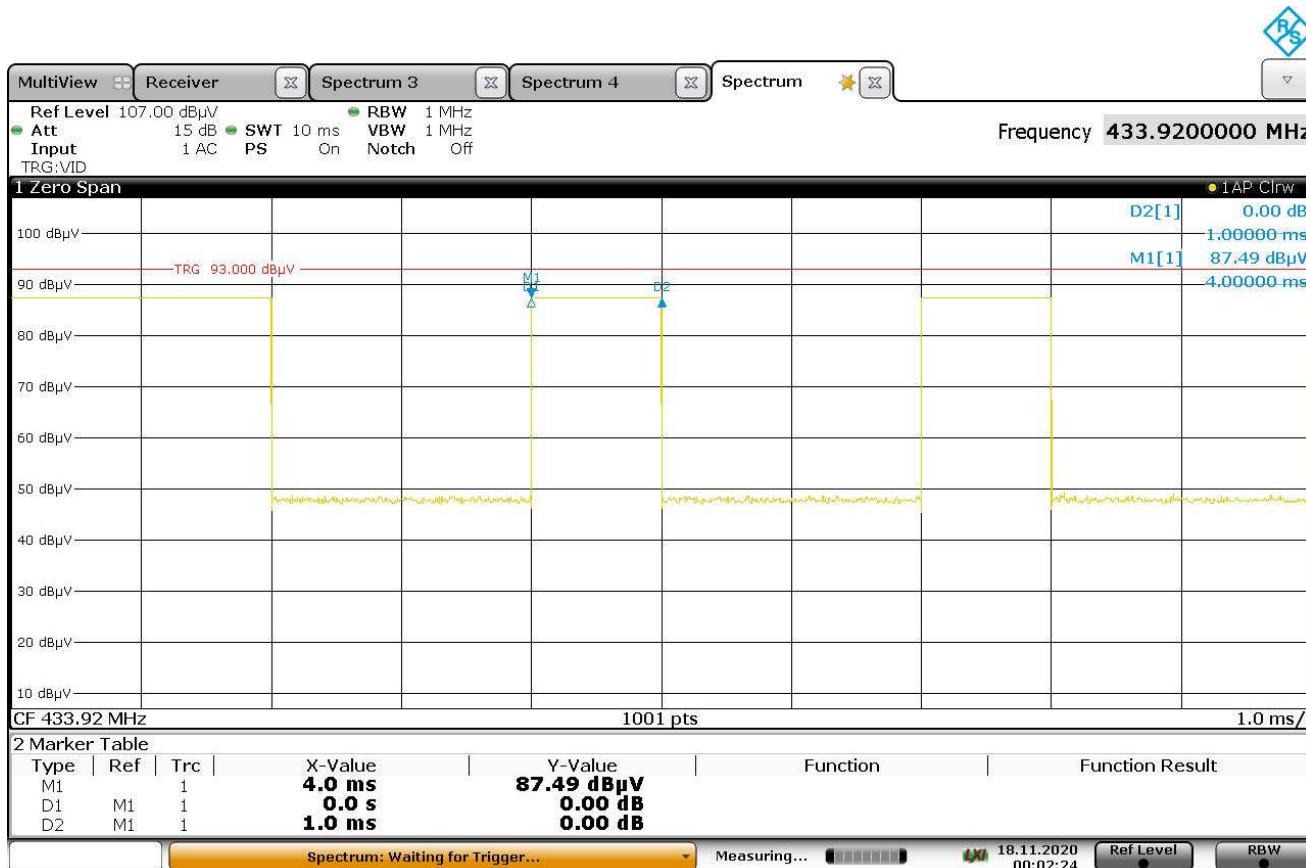


00:00:25 18.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	433.92MHz (EX Series Fix Code)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	Narrow Pulse = 1.0ms

DUTY CYCLE – NARROW PULSE

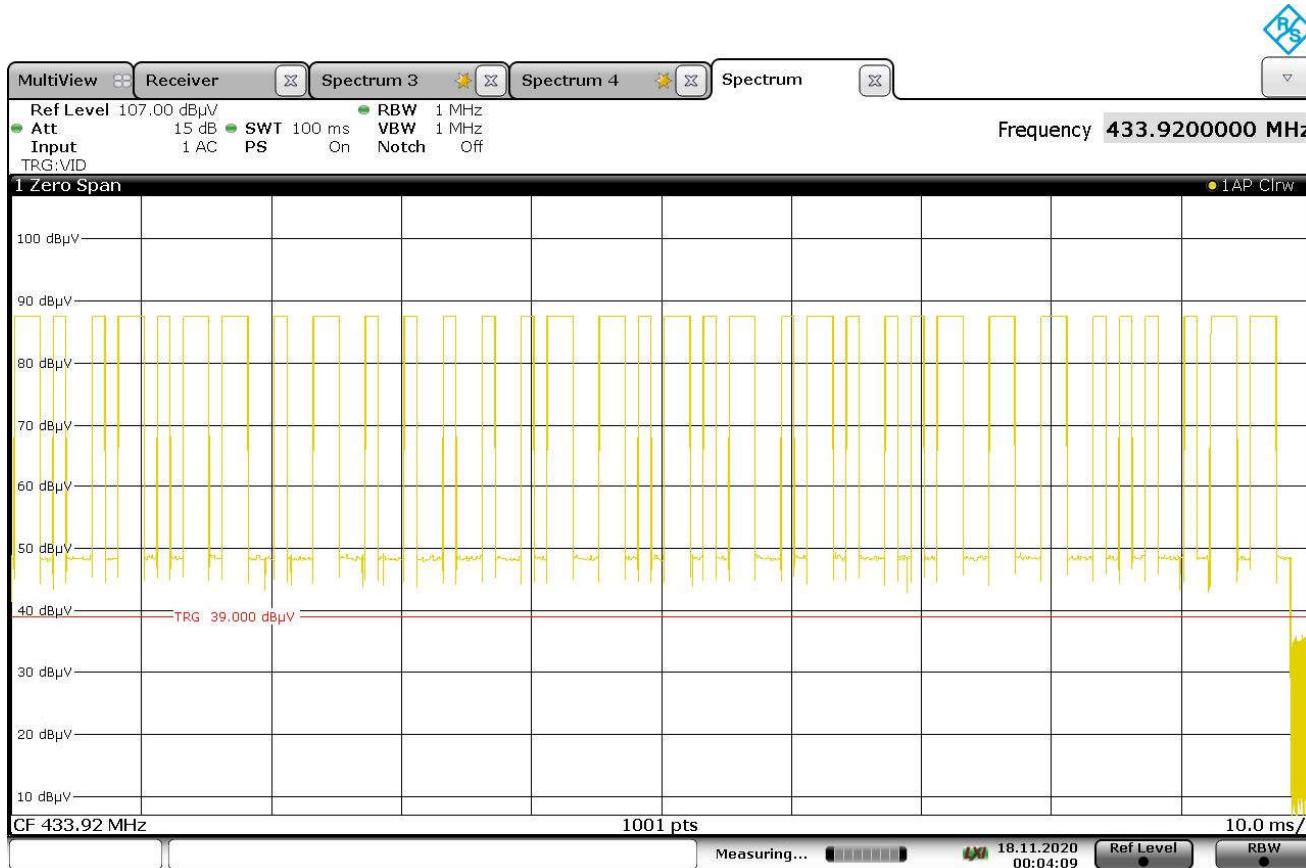


00:02:24 18.11.2020

DATA PAGE

MANUFACTURER	The Chamberlain Group, Inc.
EUT	Automotive Transceiver for Garage Door Control
MODEL NO.	CMRAA0101E3 (ARQ2-UGDO)
TEST	FCC §15.231, RSS-210 Duty Cycle
MODE	Tx
FREQUENCY TESTED	433.92MHz (EX Series Fix Code)
DATE TESTED	November 17, 2020
TEST PERFORMED BY	Tylar Jozefczyk
NOTES	<p>Duty Cycle Calculation:</p> $15 \times 2.0\text{ms} = 30.0\text{ms}$ $19 \times 1.0\text{ms} = 19.0\text{ms}$ $30.0 + 19.0 = 49.0\text{ms}$ $\text{D.C} = 20\log(49/100) = \mathbf{-6.196dB}$

DUTY CYCLE



00:04:10 18.11.2020

