DFGT-03MCXXX
Operational description

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1 Introduction

1.1 Purpose

This document contains the operational description for the DFGT-03MC18 and DFGT-03MCB23 (both referred at as DFGT).

1.2 Terms, Acronyms and Abbreviations

Below are the terms, acronyms, and abbreviations used within this document. Additional project-specific terms can be found in the project glossary.

Term, Acronym, Abbreviation	Definition
DFGT	Decorative Fireplace Gas Transceiver
DFRC	Decorative Fireplace Remote Control
ESYS	Ignition control for controlling burners
BRDG	Device to communicate with Airios RF devices via Modbus (Gateway)
RF	Radio Frequency
RC	Remote Control
BLE	Bluetooth Low-Energy
App	Application for smartphone, tablet or personal computer

2 System overview

The system is illustrated in Figure 1.

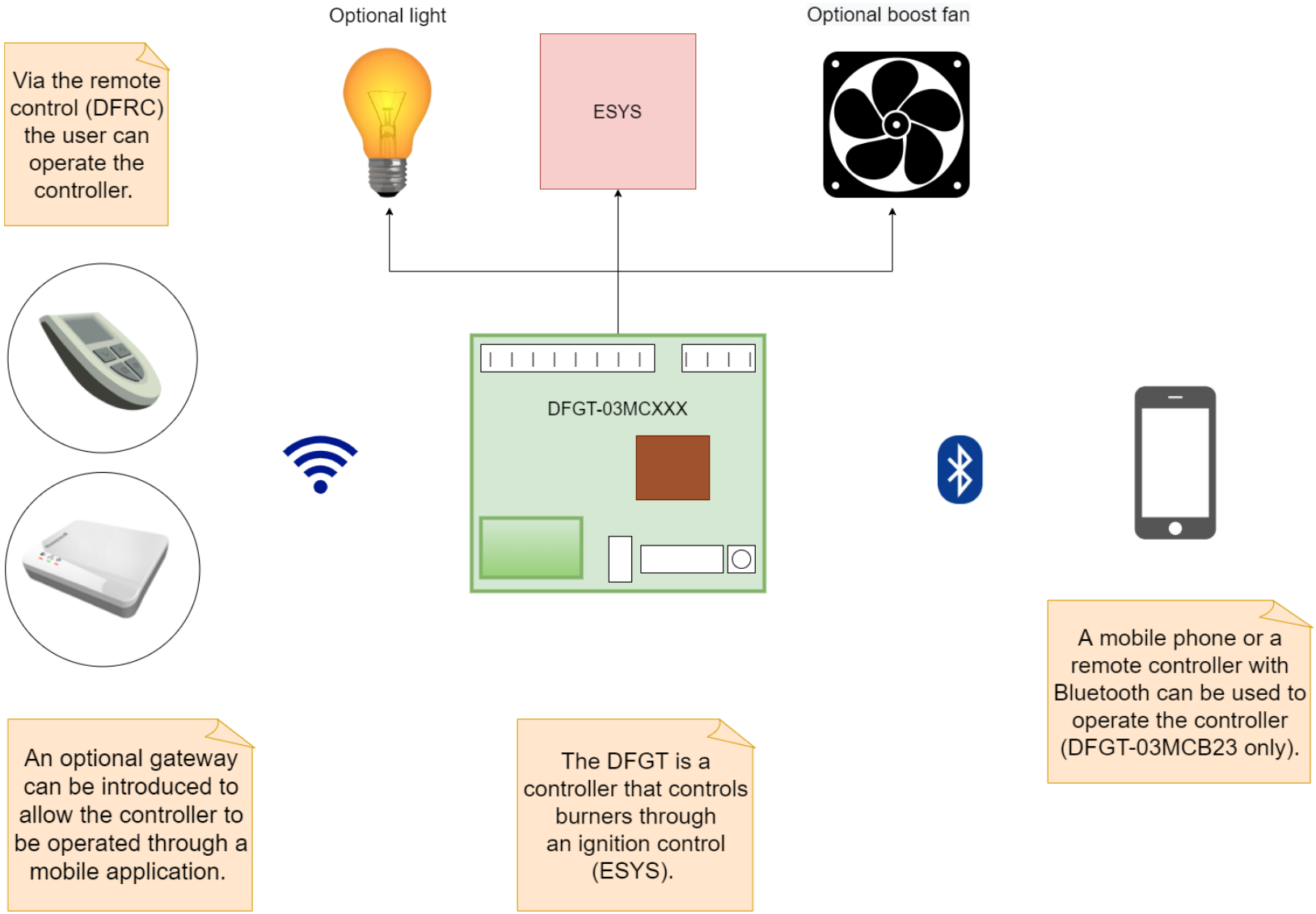

Figure 1. Simplified system overview

3 Operational description

3.1 Overview

The *decorative fireplace gas transceiver (DFGT)* is a controller that controls burners through an ignition control (ESYS). Additionally, it allows control of several options that can be implemented in a decorative fireplace, such as a light or fan option. Via a wireless *decorative fireplace remote control (DFRC)* the user can operate the controller. The remote control shows the status of the controller on a display. The same control is possible with Bluetooth BLE (for DFGT-03MCB23 only).

An optional gateway (BRDG) can be introduced to allow the controller to be operated through a mobile application. In this document it is referenced to as the APP. The DFRC and APP can be used in the same setup.

3.2 Control functions

Available control functions in the DFGT:

Control Functions

- Demand control
  Operator can control pilot, main burner or second burners (if available) and the flameheight
- Burner control
  Burner control will start the ESYS for ignation
- Temperature control
  This will enable to control the fireplace to have a constant temprature in the room
- Wave function controls
  This enables the flame heigth be changing constantly for more dramatic view
- Overheating protection
  The DFGT will check the enviromental temperature to guarantee the unit is working below maximal temperature.
- Person Present Control
  A PIR sensor can be connected. The fireplace is switched off after a timeout of **not** noticing a person,

3.3 Communication

The DFGT has 868MHz communication on the Airios protocol. This enables it to communicate with a remote control DF-03RC03 (DFRC).

The DFGT-03MCB23 has a 2,4GHz radio form Bluetooth BLE communication too. It can be used to send and receive the same information as the DFRC. It enables customers to us e a app instead of DFRC (or develop their own remote control based on BLE)